

MEQNET™ SMBG Viewer

for GLUCOCARD X Series

Operating Manual



Introduction

Thank you for choosing MEQNET SMBG Viewer for GLUCOCARD X Series. This operating manual describes how to receive and analyze measured values which have been saved in a small blood glucose test meter by using MEQNET SMBG Viewer. Before using, read this operating manual carefully.

Conventions

● Definition of words used in this operation manual

Select	Select items or icons on the screen by using the mouse or keyboard.
Start	Start applications such as this software. You can customize how to start as you like on Windows, so adapt the operations to the environment.
Click	Press the left button of the mouse once.
Double-click	Press the left button of the mouse twice.
Drag	Move the mouse around while pressing the left button.
Drop	Release the left button of the mouse after dragging.

● Words frequently used in this operation manual

This software	MEQNET SMBG Viewer for GLUCOCARD X Series, exclusive data management software for GLUCOCARD X Series.
Meter	GLUCOCARD X-METER GT-1910, GLUCOCARD X-mini plus GT-1960, a small blood glucose test meter manufactured by ARKRAY
<Screen name>	Screen name is described in parentheses < >.
<Main Menu>	The screen appears when you start this software.
[Command]	Command button is described in parentheses [].
Desktop	The screen appears when you start Windows.

● Messages in boxes as below need your special attention. So please carefully observe them.

Example:

*If you delete patient information, all the saved glucose data for the patient will be deleted.

Note

- Do NOT allow database used for this software to be edited by other database-editing software.
- The contents of this software may be change without notification.

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1. Overview of this software

1.1 Features

The followings are main functions of this software. You can

- Receive/save or analyze measured data which are saved in a meter specified by ARKRAY.
- Change setting or delete data of the meter specified by ARKRAY.
- Export measured data to CSV file where you can edit the data by using spreadsheet software.
- Input data manually to your computer, also edit, process or count saved data.
- Print analyzed data in table/graph forms.
- Save received data in HL7 format.

* For details, refer to Japanese Association of Healthcare Information Systems Industry (JAHIS) regulations on clinical data exchange.

1.2 Hardware Environment

This software is corresponding to the hardware environment shown below.

CPU	Pentium100MHz or more (recommended Celeron 450MHz or more)
Memory	32MB or more (recommended 128MB or more)
OS	Windows2000 Professional / XP Home Edition / XP Professional / Windows Vista / Windows 7 <small>*Microsoft, Windows logo, and the Windows Start logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.</small>
Hard Disc	40MB disc space or more (recommended 100 MB disc space or more)
Display Resolution	1024 × 768 dots or more
Font Size	Only “small” font is acceptable
Others	Necessary environment : Serial Port or USB Port, Mouse <small>*Transmitting comments via e-mail must be done with Outlook Express or Windows Mail. Other e-mail software does not support the system.</small>

*Internet and/or Mail setting is/are separately required.

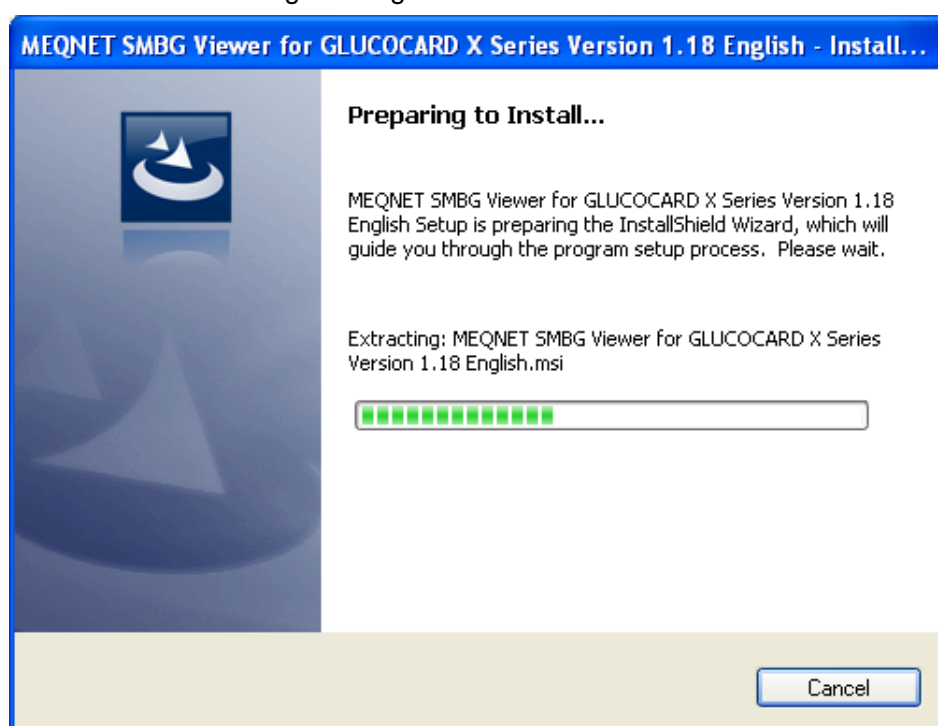
2. Software Installation

2.1 Installation

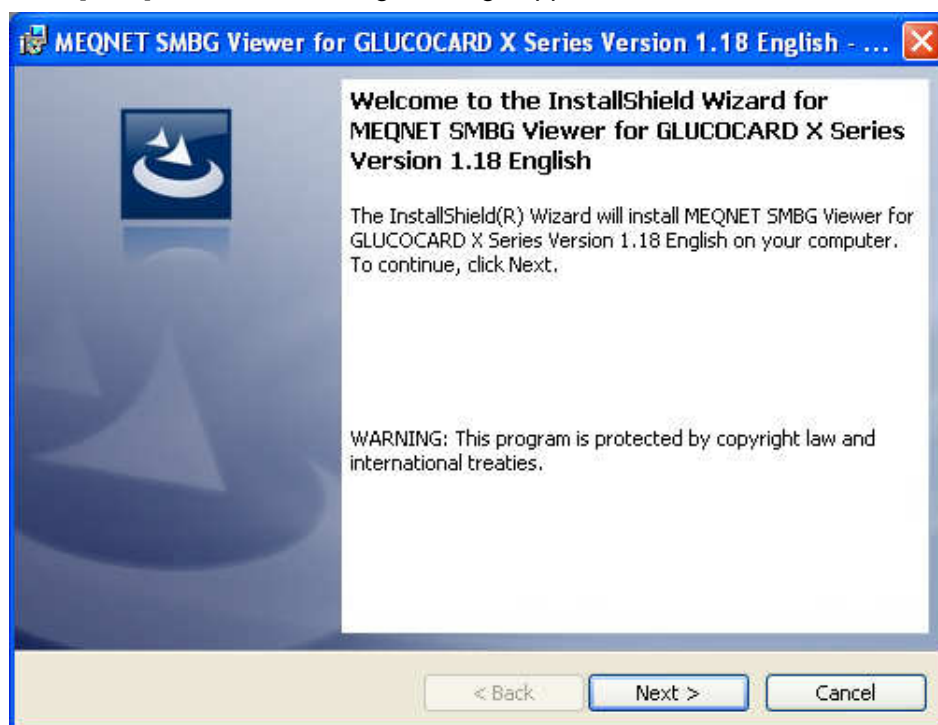
- 1) When you download installation program from the web page, select a folder (ex. My Documents) for the download of the program.
- 2) Before installation, log on to Windows as an administrator or as a user with administrator privileges and quit all active software and virus checkers.
* If you are not sure about installing this software, please contact your system administrator or IT support personnel.

● Procedure

1. Refer to a folder which contains installation program by using "Explorer" or "My Computer", then, double-click "setup.exe".
2. Wait while the following message is on the screen.



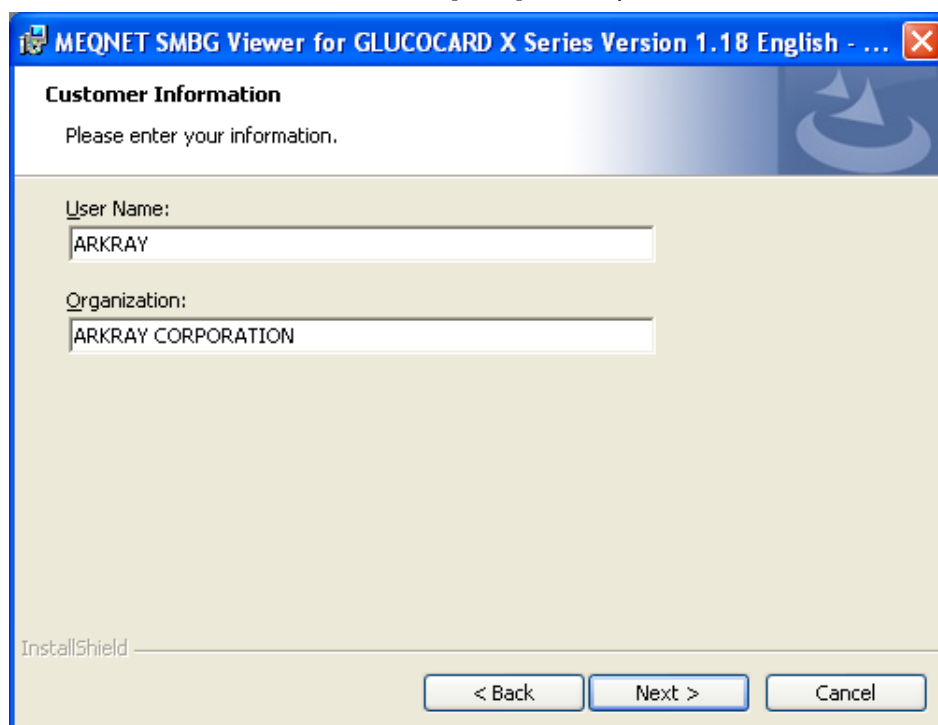
3. Click [Next] when the following message appears.



4. License Agreement appears. Read carefully, then, if you agree to the content, choose "I accept the terms in the license agreement" and click [Next].



5. Enter customer information. Click [Next] after input.



MEQNET SMBG Viewer for GLUCOCARD X Series Version 1.18 English - ...

Customer Information

Please enter your information.

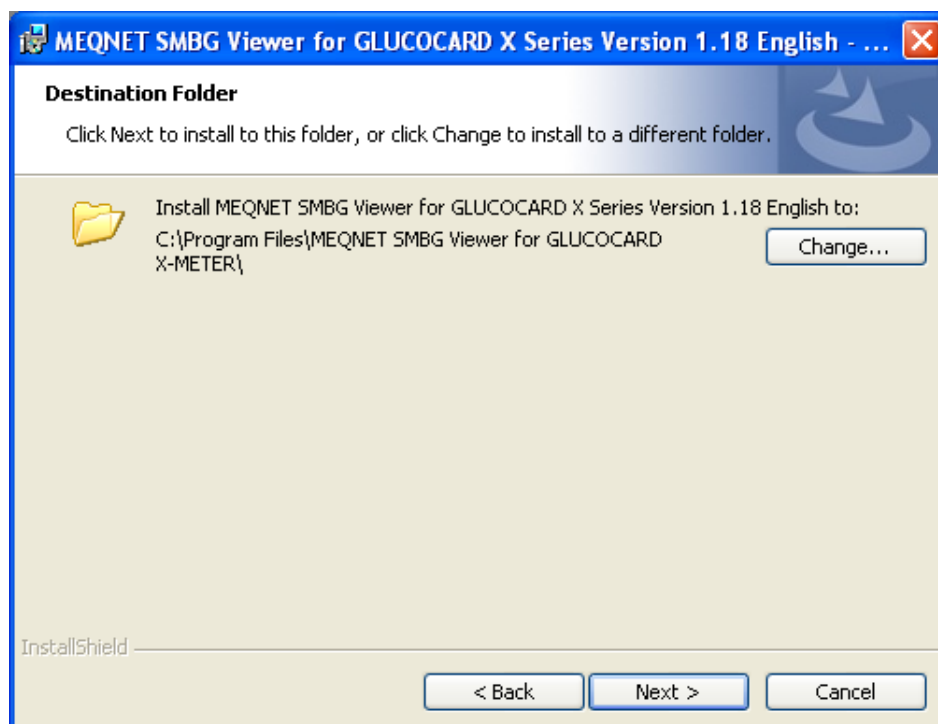
User Name:
ARKRAY

Organization:
ARKRAY CORPORATION

InstallShield

< Back Next > Cancel

6. If you need to change a destination folder, click [Change]. Otherwise click [Next].
*Do NOT select a root folder as a destination folder.



MEQNET SMBG Viewer for GLUCOCARD X Series Version 1.18 English - ...

Destination Folder

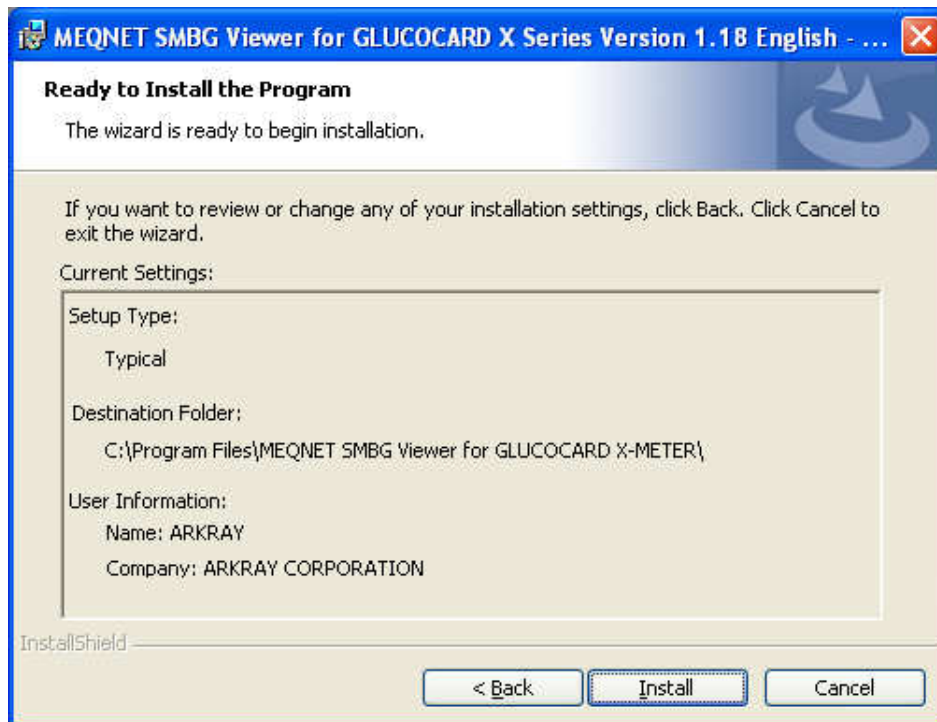
Click Next to install to this folder, or click Change to install to a different folder.

Install MEQNET SMBG Viewer for GLUCOCARD X Series Version 1.18 English to:
C:\Program Files\MEQNET SMBG Viewer for GLUCOCARD X-METER\ Change...

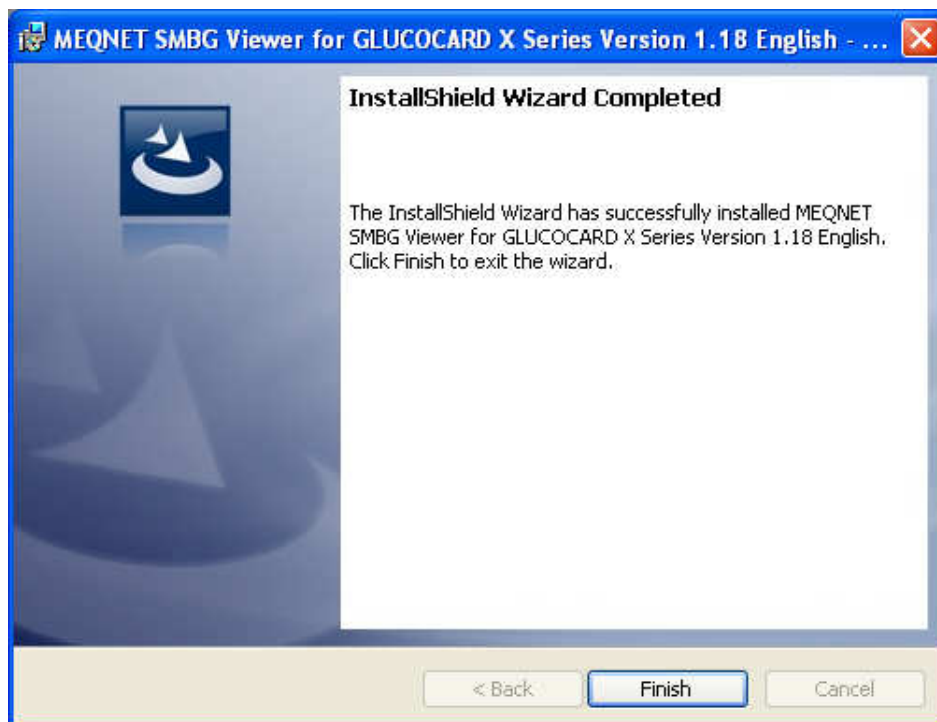
InstallShield

< Back Next > Cancel

7. The following message appears. Click [Install] to start installation.



8. When installation is completed, the following message appears. Then, click [Finish].



9. This is the end of installation of this software.

3. Start-up and exit out of software

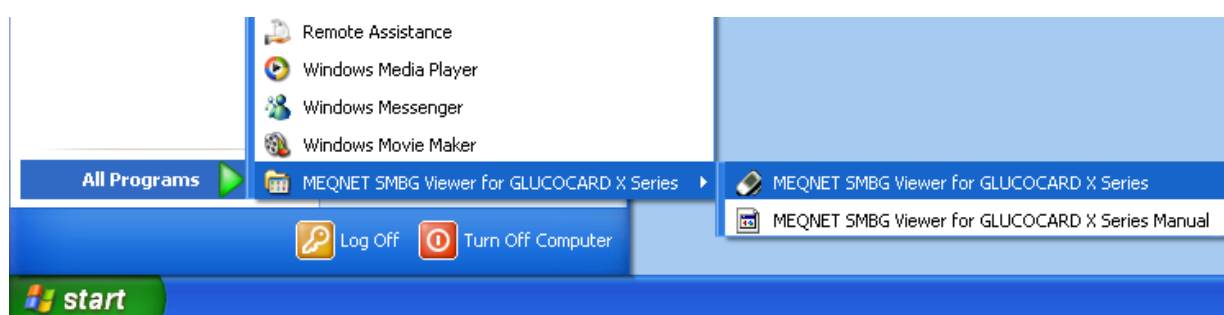
3.1 How to start the program

1. Click MEQNET SMBG Viewer for X Series icon on the desk top or click [Start] → [Program] → [MEQNET SMBG Viewer for GLUCOCARD X Series] → [MEQNET SMBG Viewer for GLUCOCARD X Series].

- ◆ Start from shortcut icon on the desk top



- ◆ Start from start button.



2. Unit setting

<Unit setting> appears. Select the unit which is used in your country or the medical care facility and then click [Save].

From this action, [MEQNET SMBG Viewer] counts and analyzes data with the selected unit.

<Unit setting>

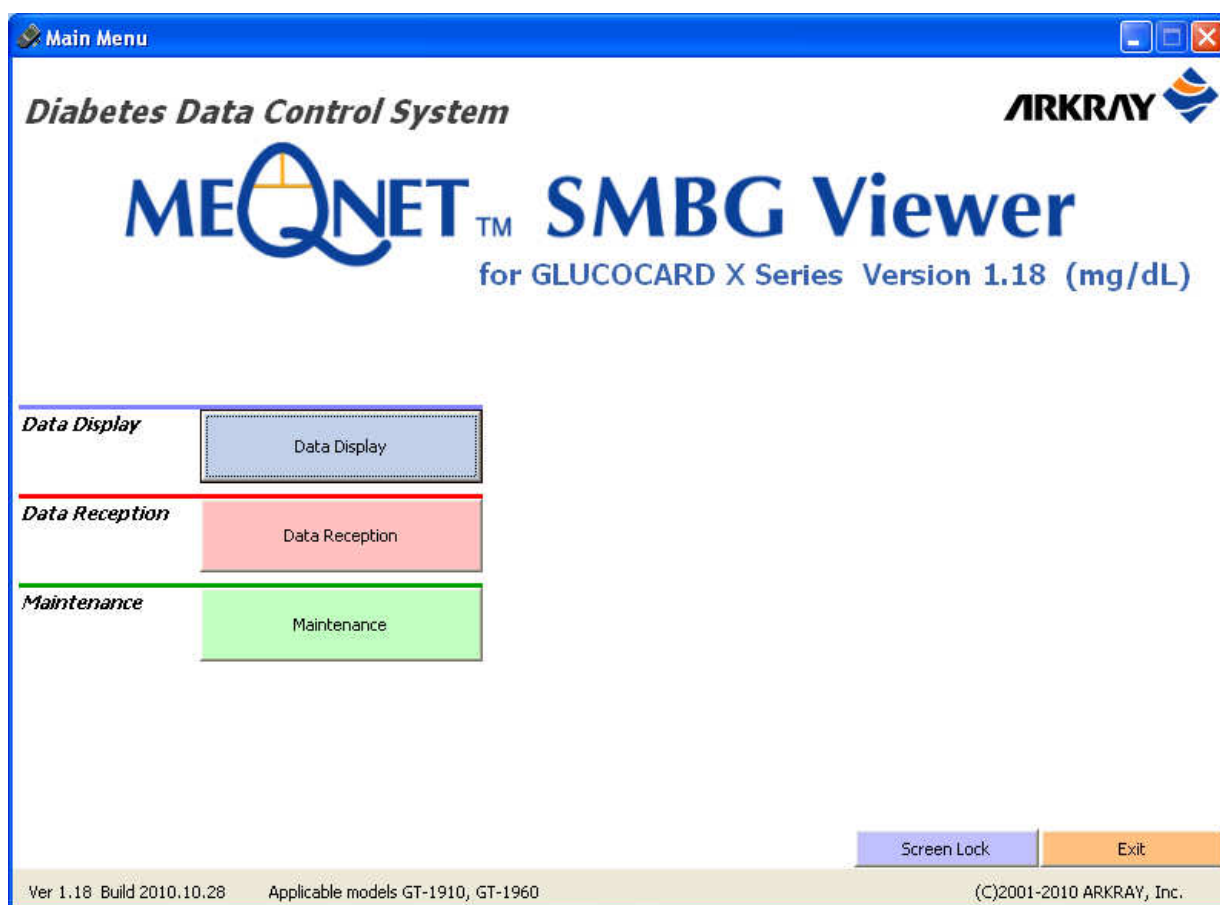


* <Unit setting> can be done only once when you first start [MEQNET SMBG Viewer].
No need to set the unit from the next time on.

* Once the unit is set, no change can be done unless you uninstall [MEQNET SMBG Viewer] and delete database (Refer to "11.7 Uninstallation").
Please be careful when you set the unit.

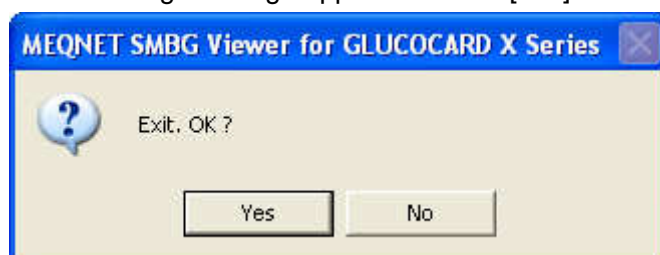
3. <Main Menu> appears.

<Main Menu>



3.2 How to exit the program

1. Click [Exit] on <Main Menu>.
2. The following message appears. Click [Yes] to exit.



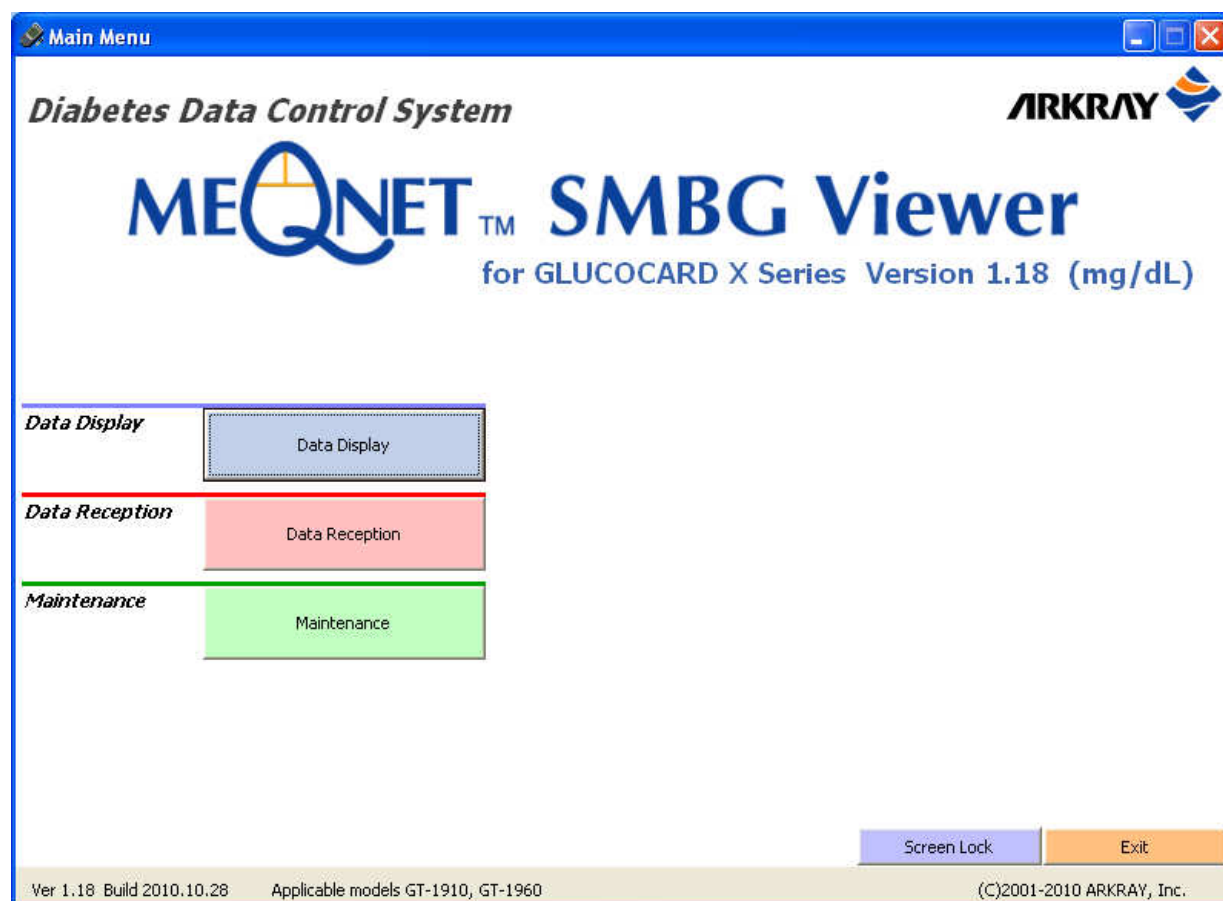
4. Screen Layout

4.1 Main Menu

This software starts with <Main Menu>.

Select a function which you want to use on <Main Menu>.

<Main Menu>



Contents of Main Menu

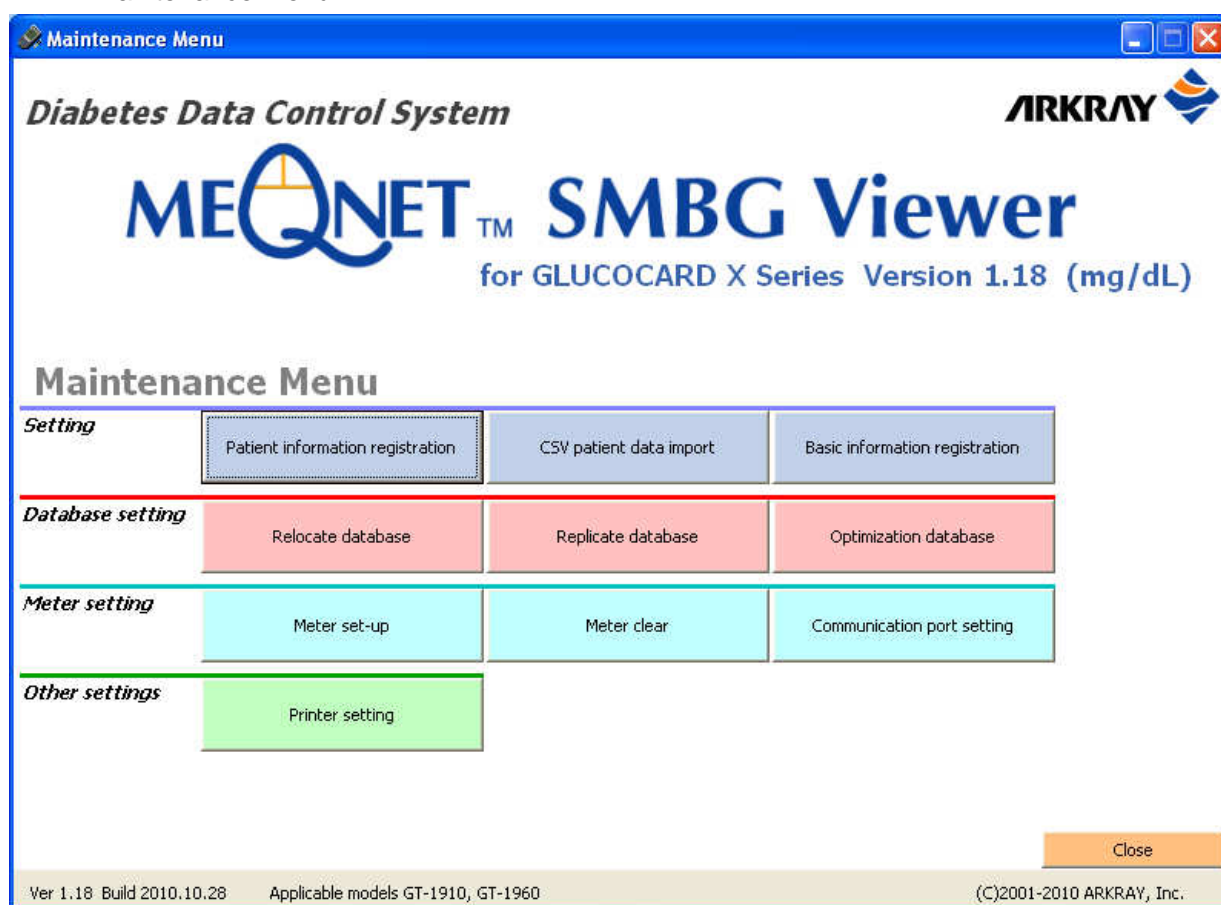
Data Display	Input / Display (glucose value, insulin, meal, exercise, weight and Dr.'s comment), data transmission, analysis, print
Data Reception	Glucose data reception from meter
Maintenance	Display of maintenance menu
Screen Lock	Prevention of the use by unauthorized users
Exit	Exit of this software

4.2 Maintenance Menu

You can do various settings for this software on <Maintenance Menu>.

Select a function which you want to use on <Maintenance Menu>.

<Maintenance Menu>



Contents of Maintenance Menu

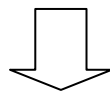
Patient information registration	Registration or change of patient information
CSV patient data import	Import of patient information from CSV file
Basic information registration	Registration/change of basic information to use this software
Relocate database	Storage change of database (Shared drive on network, etc.)
Replicate database	Replication of database
Optimization database	Defragmentation of database
Meter set-up	Change of meter setting
Meter clear	Deletion of measured data from meter
Communication port setting	Change of communication port setting that connects meter and your computer
Printer setting	Setting of printer to be used in this software
Close	Close of Maintenance Menu and going back to Main Menu

5. Operation Flow

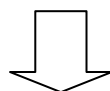
5.1 Basic operation flow

The following flowchart describes basic operations after installation of this software.

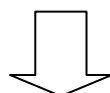
① When you use this software for the first time, register basic information and make necessary setting for communication port.



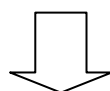
② Set up the meter and register patient information. (When the meter is connected for the first time.)



③ Receive glucose data from the meter.



④ Save received data to your computer.



⑤ Select an appropriate patient and analyze saved data. (Data processing, graph display, printing)

6. Basic Setting

6.1 Basic Information Registration

Registration of basic information is necessary before using this software.

● Procedure

When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears. Click [Basic information registration] on <Maintenance Menu> to display <Basic information registration>.

1. Input basic information, then, click [Save].

<Basic information registration>

Basic information registration

Name of medical institute: Sample hospital

Mail address:

Lock at the time of start-up: ☒ Not lock ☐ Lock

Print preview: ☒ No ☐ Yes

Comment mail transmission: ☒ No ☐ Yes

Data management method: ☒ Serial number ☐ Patient

Automatic saving of meter data: ☒ No ☐ Yes

Reception data automatic display: ☒ No ☐ Yes

Time line display: ☐ No ☒ Yes

HL7 File Output: ☒ No ☐ Yes

Printing number of copies: 1 Copy

Password to lock operation:

New password to lock operation:

New password to lock operation: For confirmation

Warning period: 2 weeks

Analysis period: 1 month

Abnormal val (H): 301 Breakfast/lunch/dinner

Abnormal val (L): 70 Before bed/late at night

Automatic graph printing:

Graph attachment to mail:

HL7 file housing folder: C:\SmbgViewer\SaveData

Folder selection

Save Close

Contents of <Basic information registration>

- Name of medical institute: (necessary)
Input the name of medical institute.
- Mail address: (necessary for comment mail transmission)
Input e-mail address to send your comments to your patients.
- Password to lock operation: (necessary to change password to lock operation)
Input the password which has been used to lock operation.
*Leave it blank if you haven't set a password to lock operation.
- New password to lock operation: (optional)
Input new password to lock operation.
- New password to lock operation (For confirmation): (necessary when you input new password)
Input new password again for confirmation.

- Warning period: (optional)
Set the warning period. Various kinds of data items in the warning period are calculated and the results are displayed on <Patient selection> which appears when you click [Data Display] on <Main Menu>.
When this warning period has passed since last data confirmation, "\$" appears in the check box of corresponding patient on <Patient selection>.
- Analysis period: (optional)
This is an initial setting of the period which is displayed on <Data table>.
- Abnormal val (H/L): (necessary)
Specify abnormal reference value on <Patient information registration>.
Initial setting: Abnormal value (High) 301 mg/dL (16.8 mmol/L)
(Low) 70 mg/dL (3.8 mmol/L)
- Lock at the time of start-up: (optional)
Set this function when you want to lock operation automatically on start-up. When you choose "Lock", screen lock appears at start-up of this software, which prevents other users from operating the program without authorizations. Refer to "11.4 Screen Lock" for details.
- Print preview: (optional)
Choose "yes" if you want a print preview before printing.
- Comment mail transmission: (optional)
Choose "yes" if you want to send comments you input in the <Data table> to your patients.
* To create and send comment e-mails, use Outlook Express. Other e-mail software does not support the system.
* Contact your provider for details in setting up the Outlook Express.
- Data management method: (optional)
There are two methods available for data management. Select either method from the two methods described below.
 - ◆ Serial number
Patient ID can be identified automatically on the basis of its "meter serial number" recorded in <6.2 Patient information registration> and then the glucose data in the meter will be received as the specified patient data.
 - ◆ Patient
When meter data is being transmitted, a list of patients who have been registered in <Patient information Registration> is displayed. From the list, you can select a patient whose data to be received.
- Automatic saving of meter data: (optional)
Choose "yes" if you want to automatically save the received data when data reception from a meter is completed.
- Reception data automatic display: (optional)
Choose "yes" if you want to automatically display data table when the data reception is completed.
- Time line display: (optional)
Choose "Yes" if you want to display the data points by a line plot.
- Printing number of copies: (optional)
Select printing number of copies.

- Automatic graph printing: (optional)
Select proper tables or graphs when you want to automatically print the data once you receive it from a meter.
* If you select tables or graphs you want to automatically print, “Yes” is always selected for automatic saving of meter data”.
- Graph attachment to mail: (optional)
Select tables or graphs to be attached to comment mails. It is also possible to select them manually right before you send your comments to your patients.
- HL7 file housing folder
Specify the location for storage of HL7 file which is to be created at the time of receiving meter data. * Please refer to “11.6 About HL 7” for information on HL7.

6.2 Patient Information Registration

Registration of patient information is necessary before using this software.

- Procedure
 1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears.
Click [Patient information registration] on <Maintenance Menu> to display <Patient information registration>.
 2. Input patient information and click [Save].
* “Time zone setting (necessary)” is displayed in two ways on <Patient information registration> depending on the choice of After-meal categorization.

<Patient information registration> (When you do not choose “Postprandial time”)

Patient information registration

Patient information (necessary)

Patient ID: [0000000000000000]

Patient name: [test data 0]

Memo: [] (Optional)

Meter serial number: [0000000] *Please input 0 if you are not sure.

Abnormal val (H): [301] Breakfast/lunch/dinner [301] Before bed/late at night

Abnormal val (L): [70] Breakfast/lunch/dinner [70] Before bed/late at night

Patient information (optional)

Diabetes type: ☐ Type 1 ☐ Type 2 ☒ Others

e-mail address: []

Gender: ☒ Male ☐ Female

Birthday: []

Postal code: []

Address: []

Phone number: []

Contact person: []

Contact phone: []

Relation: []

Time zone setting (necessary)

B.fast: [06:00] -

Lunch: [11:00] -

Dinner: [16:00] -

Bef bed: [22:00] -

Late N: [01:00] -

☐ Postprandial time

Selection of data

☒ Latest value ☐ Low value

Save

CSV file (glucose data) import or export

Delete

Clear

Close

<Patient information registration> (When you choose “Postprandial time”)

Patient information registration

Patient information (necessary)

Patient ID: 0000000000000000

Patient name: test data 0

Memo: (Optional)

Meter serial number: 00000000 *Please input 0 if you are not sure.

Abnormal val (H): 301 Breakfast/lunch/dinner 301 Before bed/late at night

Abnormal val (L): 70 Breakfast/lunch/dinner 70 Before bed/late at night

Patient information (optional)

Diabetes type: ☐ Type 1 ☐ Type 2 ☒ Others

e-mail address:

Gender: ☒ Male ☐ Female

Birthday:

Postal code:

Address:

Phone number:

Contact person:

Contact phone:

Relation:

Time zone setting (necessary)

Bef B.fast	06:00	-
Aft B.fast	08:00	-
Bef Lunch	11:00	-
Aft Lunch	13:00	-
Bef Dinner	16:00	-
Aft Dinner	18:00	-
Bef bed	22:00	-
Late N	01:00	-

☒ Postprandial time

Selection of data

☒ Latest value ☐ Low value

Buttons: Save, CSV file (glucose data) import or export, Delete, Clear, Close

Contents of <Patient information registration>

1. Patient information: (necessary)

- **Patient ID**
Input a patient ID consisting of up to 15-digit alphanumeric characters that is assigned individually in each medical institute.
- **Patient name**
Input a patient name consisting of up to 40-digit alphanumeric characters.
- **Meter serial number**
Input a serial number of meter which is used by a patient. Refer to “6.6 How to change meter setting” for details. If you are not sure about the serial number, input 0. You can change the number after confirming exact serial number.
 - * Input a serial number with 6 digits or more.
 - * Input serial number using alphanumeric starting with 1910- (X-Meter) or 1960 (X-mini plus).
 - * There is patient data of previous version. If you select this registered patient data, serial number will be changed automatically to starting with 1910- (X-Meter) or 1960 (X-mini plus).
- **Abnormal val (H/L)**
If glucose value of a patient is higher /lower than the set value shown here, warning of abnormal glucose value shows up on <Data display>.

2. Time zone setting: (necessary)

【When you do not choose <Postprandial time>】

- Time setting for each time zone

Set the beginning time of “breakfast”, “lunch” and “dinner”. Also set the beginning time of the time zone “before bedtime” and “late at night”.

- Selection of SMBG data (in each time zone)

When there are two or more measurement data within the same time zone on the same day, select between the latest value and lowest value for display and analysis.

Time zone setting (necessary)

B.fast 06:00 -

Lunch 11:00 -

Dinner 16:00 -

Bef bed 22:00 -

Late N 01:00 -

☐ Postprandial time

Selection of data

☒ Latest value ☐ Low value

Save

CSV file (glucose data) import or export

Delete

Clear

【When you choose <Postprandial time>】

- Time setting for each time zone

Set time zone when blood glucose data is saved by inputting each beginning time.

- Selection of SMBG data (in each time zone)

When there are two or more multiple measurement data within the same time zone on the same day, select between the latest value and the lowest value for display and analysis.

Time zone setting (necessary)

Bef B.fast 06:00 -

Aft B.fast 08:00 -

Bef Lunch 11:00 -

Aft Lunch 13:00 -

Bef Dinner 16:00 -

Aft Dinner 18:00 -

Bef bed 22:00 -

Late N 01:00 -

☒ Postprandial time

Selection of data

☒ Latest value ☐ Low value

Save

CSV file (glucose data) import or export

Delete

Clear

3. Patient information: (optional)

- Diabetes type

Select diabetes type of a patient.

- e-mail address

Input patient's e-mail address. Comment mails will be sent to this address.

*Comment mail: you can e-mail the comments that you input on <Data table> to your patients.

- Gender (Male/Female)

- Birthday

Make sure to move the cursor to the left end of the space before inputting the birthday.

Ex.) August 5, 1960 → 08/05/1960

- Input patient information; postal code, address, phone number, contact person, contact phone, relation (optional).

4. Buttons

- [Save]
Press this button when you need to save input data.
- [CSV file (glucose data) import or export]
Import or export patient's glucose data from/to CSV file. Refer to "10.3 How to import/export patient glucose data from/to CSV file" for details.
- [Delete]
Press this button to delete patient information which is presently displayed.

<p>*Caution: If you delete patient information, all the saved glucose data for the patient will be deleted.</p>

- [Clear]
Press this button to initialize all the entered information.
- [Close]
Press this button to close <Patient information registration>.

6.3 Time zone and postprandial time

【Time zone】

For data management, MEQNET SMBG Viewer sets several “time zone” which is certain extended period of time, e.g. mealtimes, before bedtime and late at night. Blood glucose data is assigned in either time zone based on the measurement time.

Input time in a box after each item. The period between the time set for an item and the time set for the next item is recognized as “time zone” for that item.

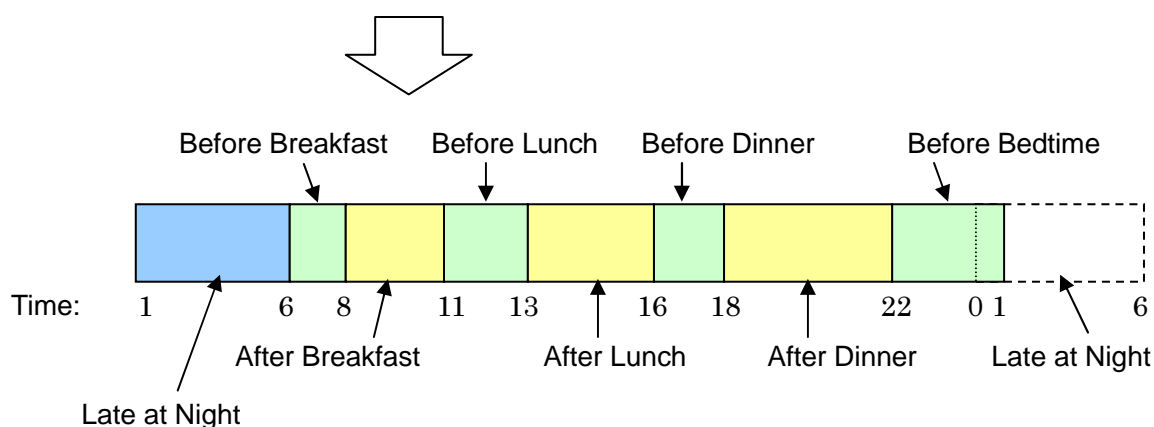
Time zone setting (necessary)	
Bef B.fast	06:00 -
Aft B.fast	08:00 -
Bef Lunch	11:00 -
Aft Lunch	13:00 -
Bef Dinner	16:00 -
Aft Dinner	18:00 -
Bef bed	22:00 -
Late N	01:00 -

☒ Postprandial time

Selection of data
☒ Latest value ☐ Low value

* Example: If input time in each box is as the table below, time zones will be specified as the chart below.

Time zone	Input time
Bef B. fast	06:00
Aft B. fast	08:00
Bef Lunch	11:00
Aft Lunch	13:00
Bef Dinner	16:00
Aft Dinner	18:00
Bef bed	22:00
Late N	01:00



【Postprandial time】

The following instruction describes how this system determines whether the blood glucose data is “before meal” data or “after meal” data.

* The instruction below is a case where the unit is set to mg/dL.

◆ When you do not choose <Postprandial time>

- 1) The blood glucose data marked “C” on postprandial mark are determined as “after meal” data. (About “C” mark, refer to “8.3 Meter Data Table”.)
- 2) The blood glucose data marked “Y” on postprandial mark are determined as “after meal” data. (About “Y” mark, refer to “8.3 Meter Data Table”.)
(X-mini plus only)
- 3) All the blood glucose data are determined as “before meal” data.

...Example.....

Time zone setting		Glucose data				
Time zone	Input time	No.	Measurement time	Time zone	Value	Postprandial mark
Breakfast	06:00	1	08:07	Breakfast	97	
Lunch	11:00	2	11:23	Lunch	100	
Dinner	16:00	3	13:13	Lunch	278	C
		4	16:05	Dinner	302	Y

- No.1 is assigned in Breakfast time zone and determined as “before breakfast” data.
- No.2 is assigned in Lunch time zone and determined as “before lunch” data.
- No.3 is assigned in Lunch time zone with postprandial mark and determined as “after lunch” data.
- No.4 is assigned in Dinner time zone with postprandial mark and determined as “after dinner” data.

*Display on screen

Time zone setting

Time zone setting (necessary)

B.fast 06:00 -

Lunch 11:00 -

Dinner 16:00 -

Meter data table

Date	Time	Time zone	Measured value	Before meal	Postprandial	Elapsed time	Meal amount	After Ex.	DEL
08/26/2010 (Thu)	08:07	B.fast	97						
08/26/2010 (Thu)	11:23	Lunch	100						
08/26/2010 (Thu)	13:13	Lunch	278		C				
08/26/2010 (Thu)	16:05	Dinner	302		Y				

Data table

Date	B.fast		Lunch		Dinner		Bef bed	Late N
	Bef	Aft	Bef	Aft	Bef	Aft		
08/26(Thu)	97		100	278		302		

◆ When you choose <Postprandial time>

- 1) The blood glucose data with postprandial mark "C" are determined as "after meal" data. (About "C" mark, refer to "8.3 Meter Data Table".)
- 2) The blood glucose data which can be assigned in time zones such as "after breakfast", "after lunch" and "after dinner", are determined as "after meal" data with postprandial mark "A". (About "A" mark, refer to "8.3 Meter Data Table".)
- 3) The blood glucose data with postprandial mark "Y" are determined as "after meal" data. (About "Y" mark, refer to "8.3 Meter Data Table".)
(X-mini plus only)
- 4) Other data are determined as "before meal" data.

...Example.....

Time zone setting		Glucose data				
Time zone	Input time	No.	Measurement time	Time zone	Value	Postprandial mark
Bef B.fast	06:00	1	08:07	B.fast	97	A
Aft B.fast	08:00	2	11:23	Lunch	100	
Bef Lunch	11:00	3	13:13	Lunch	278	C
Aft Lunch	13:00	4	16:05	Dinner	302	Y
Bef Dinner	16:00					

- No.1 is assigned in Bef B.fast time zone and determined as "before breakfast" data.
- No.2 is assigned in Aft B.fast time zone and determined as "after breakfast" data with postprandial mark "A".
- No.3 is assigned in Bef Lunch time zone and determined as "after lunch" data.
- No.4 is assigned in Bef Dinner time zone and determined as "after dinner" data.

*Display on screen

Time zone setting

Time zone setting (necessary)

Bef B.fast	06:00	-
Aft B.fast	08:00	-
Bef Lunch	11:00	-
Aft Lunch	13:00	-
Bef Dinner	16:00	-

Meter data table

Date	Time	Time zone	Measured value	Before meal	Postprandial	Elapsed time	Meal amount	After Ex.	DEL
08/26/2010 (Thu)	08:07	B.fast	97		A				
08/26/2010 (Thu)	11:23	Lunch	100						
08/26/2010 (Thu)	13:13	Lunch	278		C				
08/26/2010 (Thu)	16:05	Dinner	302		Y				

Data table

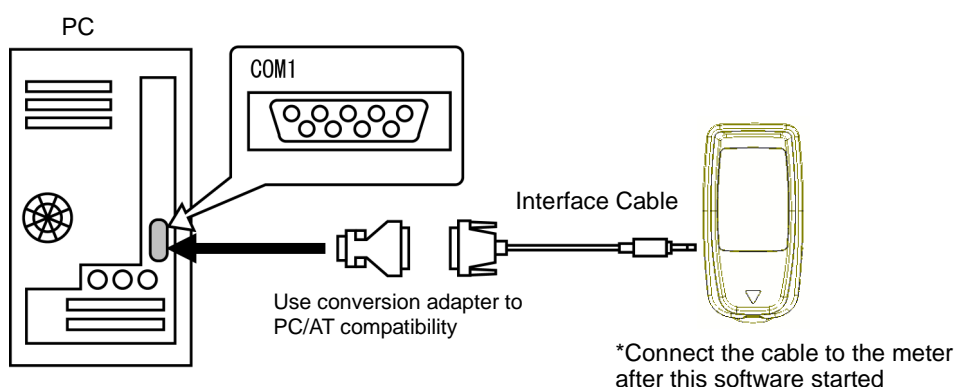
Date	B.fast		Lunch		Dinner		Bef bed	Late N
	Bef	Aft	Bef	Aft	Bef	Aft		
08/26(Thu)		97	100	278		302		

6.4 How to change patient information

- Procedure
 - 1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears.
Click [Patient information registration] on <Maintenance Menu> to display <Patient information registration>.
 - 2. Select a patient ID whose information you want to change.
 - 3. Input new information under the items you want to change, then, click [Save].
- *You can also display <Patient information registration> by clicking [Patient information] on <Data table>.

6.5 Port Communication Setting (Before first reception of data)

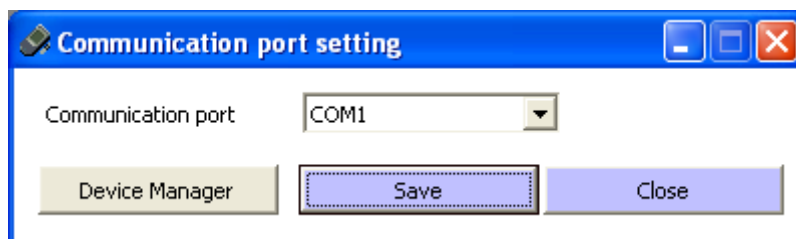
When you receive data from a meter for the first time, set PC's serial port number and the communication port for this software.



- Procedure
- On [Communication port setting] for this software, "COM1" is chosen as a communication port in advance. It is not necessary to change the setting when you connect a cable to "COM1" port of your computer. If you connect a cable to another communication port, change the communication port setting to match the port number with your computer.

1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears.
Click [Communication port setting] on <Maintenance Menu> to display <Communication port setting>.

<Communication port setting>



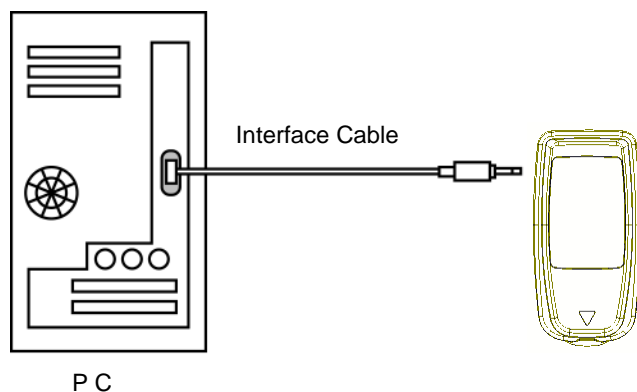
2. Change communication ports if necessary, then, click [Save].
*Select "None" when you don't connect a meter.
3. Restart this software.
*Click [Close] to close the window when you exit without setting changes.

6.6 How to change meter setting

Set the time and serial number of a meter before you connect it to this software for the first time.

● Procedure

1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears. Click [Meter set-up] on <Maintenance Menu> to display <Meter set-up>.
2. Connect the cable to communication port of your PC.



*Do not connect the cable to a meter at this stage.

3. The message "Connect a meter to receive the settings" appears, then, connect a meter. Once the meter is connected, the power turns on automatically.

The screenshot shows a software window titled 'Meter set-up'. At the top, a black banner displays the text 'Connect a meter to receive the settings.' in green. Below this, various settings are configurable:

- Date Set:** A dropdown menu showing '11/05/2010'.
- Time Set:** A text box showing '11:25'.
- 12h /24h Display:** Radio buttons for '12 Hour' (selected) and '24 Hour'.
- Unit:** Radio buttons for 'mg/dL' (selected) and 'mmol/L'.
- Month/Date Order:** Radio buttons for 'Month.Day' and 'Day.Month' (selected).
- Buzzer:** Radio buttons for 'OFF' (selected), 'Low (1)', 'Normal (2)', and 'High (3)'.
- Average value display:** Radio buttons for 'OFF' (selected), '14day average', and '30day average'.
- Serial No.:** A text box showing '19xxx' followed by an empty input field.

On the right side of the window, there are two buttons: 'Write' and 'Cancel'.

4. Once the meter power turns on, data transmission starts automatically. After data transmission is completed, a message suggesting you remove the cable will appear. Remove the cable from the meter, then, click [OK].

*Be sure to connect the meter when the display shows "Connect a meter to receive the settings." When other messages are displayed, information set in the meter will not be transmitted to PC.

5. Current setting status of the meter appears. Change the setting, if necessary, then, click [Write].

Contents of <Meter set-up>

Meter set-up

You can change the settings. After changing, click [write] , and connect a meter to save the new settings.

Date Set: 10/19/2010

Time Set: 00:35

12h /24h Display: ☐ 12 Hour ☒ 24 Hour

Unit: ☒ mg/dL ☐ mmol/L

Month/Date Order: ☒ Month.Day ☐ Day.Month

Buzzer: ☐ OFF ☒ Low (1) ☐ Normal (2) ☐ High (3)

Average value display: ☐ OFF ☒ 14day average ☐ 30day average

Serial No. 1910- 0123456

Write

Cancel

- **Date Set**
Check if date of meter is correct or not. Adjust it if necessary.
Make sure to move the cursor to the left end of the space before entering the date as shown below.
Ex.) January 29, 2004 → 01/29/2004
- **Time Set**
Check the time displayed on the meter and adjust it if necessary.
Make sure to move the cursor to the left end of the space and input in 24h display as shown below when you adjust the time.
Ex.) 3:20 PM → 15:20
- **12h/24h Display**
Choose which format you want to have on the meter, 12h display or 24h display.
- **Unit (Impossible to input/change)**
Display which unit of measured glucose data on the meter, mg/dL or mmol/L.
- **Month/Date Order**
Choose which order of the date you want to have on the meter, Month/Day or Day/Month.
- **Buzzer**
Choose the buzzer volume between OFF, Low, Normal and High.
- **Average value display**
Choose from "OFF", "14 day average", "30 day average" for average value display. (X-meter)
Choose from "OFF", "7 day average", "14 day average", "30 day average", "90 day average" for average value display. (X-mini plus)
- **Serial No.**
Input random number with up to 7 digits in this space.

<X-mini plus only>

Meter set-up

You can change the settings. After changing, click [write], and connect a meter to save the new settings.

Date Set: 11/09/2010

Time Set: 16:02

12h /24h Display: ☐ 12 Hour ☒ 24 Hour

Unit: ☒ mg/dL ☐ mmol/L

Month/Date Order: ☒ Month.Day ☐ Day.Month

Buzzer: ☐ OFF ☐ Low (1) ☐ Normal (2) ☒ High (3)

Average value display: ☒ 7day ☐ 14day ☐ 30day ☐ 90day

Hypoglycemic: ☒ OFF ☐ ON mg/dL

Clock Timer: ☒ OFF ☐ ON min

Meal Amount: ☒ OFF ☐ ON

Alarm

Alarm	Setting	Time
Alarm-1	<input checked="" type="radio"/> OFF <input type="radio"/> ON	<input type="text" value="00"/> : <input type="text" value="00"/>
Alarm-2	<input checked="" type="radio"/> OFF <input type="radio"/> ON	<input type="text" value="00"/> : <input type="text" value="00"/>
Alarm-3	<input checked="" type="radio"/> OFF <input type="radio"/> ON	<input type="text" value="00"/> : <input type="text" value="00"/>
Alarm-4	<input checked="" type="radio"/> OFF <input type="radio"/> ON	<input type="text" value="00"/> : <input type="text" value="00"/>

Serial No. 1960A

Write Cancel

- Hypoglycemia
Choose the hypoglycemia warning function from "ON" or "OFF". And input the hypoglycemia threshold value from 10 to 80 mg/dL (from 0.6 to 4.4 mmol/L) .
 - Clock timer
Choose the clock counter function from "ON" or "OFF". And select the time elapsed since the beginning of your last meal.
 - Meal Amount
Choose the meal amount function from "ON" or "OFF".
 - Alarm
Choose the alarm function from "ON" or "OFF". And select the alarm time. There are four alarms. (Alarm-1 to Alarm-4)
6. Connect the meter, the power turns on automatically. When a message of completion appears, disconnect the cable from the meter, then, click [OK].

* Disconnect the cable from the meter after you complete writing so that the transmission may not start again.

7. Data Reception

7.1 How to receive data

*Follow the instructions on the screen when you receive data from a meter. Removing the connected cable or turning off the meter may result in a failure.

* The instruction below is a case where the unit is set to mg/dL.

● Procedure

1. Click [Data Reception] on <Main Menu>.
2. <Select patient for data reception> appears. Click a patient whose data you want to receive, then click [Select].
 - * <Select patient for data reception> appears only when you have selected "Patient" under Data management method on <Basic information registration>. When you have selected "Serial number", go to Procedure 3.

*Be careful not to receive a wrong patient's data.

<Select patient for data reception>

ID	Patient Name	Memo	Last measurement date	Last measurement time
1000	Tom		04/26/2004	08:03
2000	John		08/04/2004	18:48
500	Anne		04/16/2004	19:29

3. <Waiting for communication> appears. Connect a cable to a meter.

<Waiting for communication>

Serial No []

Receive [0]

COM = 1

4. Your computer automatically receives measured data from the meter. When all the data reception from the meter is completed, <Completed reception> appears, then, the received data are displayed on <Received data display>.
5. Remove the cable from the meter.

<Completed reception>

0000000000

Data transmission is completed. Disconnect the cable.

- * Disconnect the cable from the meter after you finish data reception so that the transmission may not start again.
- * While <Completed reception> is being displayed (approx. 20 seconds), your computer cannot receive any data from the meter.

<Received data display>

- * If you choose “Yes” for automatic saving of meter data when you register basic information, the received data are automatically saved and <Received data display> is not shown on the screen.
- * In this software, meter data displayed as “Lo” and “Hi” correspond to the following.

Meter data	Corresponding value (mg/dL)	Corresponding value (mmol/L)
Hi	600	33.3
Lo	10	0.6

- * When the received data seem wrong, check the measured data by calling memory of the meter.

Contents of <Received data display>

- Average/Median/Max val/Min val/Data count
Average/Median/Max value/Minimum value/Data count of received data are displayed.
*Data with marks such as “delete”, “control” or “temperature abnormality, which are not to be analyzed, are not included in calculation.
- No
Numbers of measured data. No.1 means the oldest measured data.

- Date 1 (changeable)
Measured date is displayed. Correct it if necessary. Refer to “7.2 How to change measured date, time zone, postprandial marker” for details.
- Time
Measured time is displayed.
- Glucose val (glucose value)
Measured data transmitted to this software is displayed.
The measured glucose value with hypoglycemia flag is displayed by blue characters.
(X-mini plus only)
- Mark
If measured data which are received from a meter have particular information, the following marks are displayed.
 - ◆ Control : This mark is displayed on data which you measured using control solution and put control mark (CONT).
 - ◆ Delete : This mark is displayed on data which you put delete mark (DEL) when you measured glucose value using a meter or when errors occurred.
 - ◆ Temp Abnormality: This mark is displayed when you obtain incorrect measured data due to room temperature in unacceptable ranges.
- Date 2
Date of measurement that are assigned and saved according to time zones after being transferred from a meter to this software.
Ex.) Time zone: Late at Night 11:00pm – 6:00am (Next morning)
If glucose is measured at 5:00am on April 30, Date 2 of the measurement, in this case, is “April 29”.
- Time zone (changeable)
Measured time of the meter and time zone which is set on <Patient information registration> are checked, then, it is automatically sorted into each time zone. When you change time zone, refer to “7.2 How to change measured date, time zone, postprandial marker” for details.
- Before meal
The glucose data with before meal mark is displayed “Y” on the Before meal column.
(X-mini plus only)
- Postprandial
Glucose data determined as after mealtime display “A” on the Postprandial column.
When you change the setting, refer to “7.2 How to change measured date, time zone, postprandial marker” for details.
The glucose data with after meal mark is displayed “Y” on the Postprandial column.
(X-mini plus only)
- Elapsed time
The glucose data with clock counter mark is displayed “elapsed time” on the Elapsed time column. (X-mini plus only)

- Meal amount
The glucose data with meal amount mark is displayed “50%” ,“80%” or “Full” on the Meal amount column. (X-mini plus only)
- After Exercise
The glucose data with after exercise mark is displayed “Y” on the After Ex column. (X-mini plus only)
- Save
Check measured data which you want to save. Refer to “7.3 How to save measured data” for details.
*Newly received data have checks on “Save” checkboxes automatically.

Description of the colored line

- The data measured on the same day and the same time zone are displayed in blue. On analysis screens, only one of the data measured in the same time zone is displayed. Other measured data are not shown on the screen.
- The data which is shown with “Control”, “Delete” or “Temperature Abnormality” in the mark column is excluded from analysis even if you save the data. These data are displayed in yellow.
* The data with “Control” or “Temperature Abnormality” marking will not be saved.
- The data which shows mealtime is displayed in light green.

Other buttons on <Received data display>

- [Redisplay]
Changed contents on <Received data display> are reflected and redisplayed on the screen.
- [Save Data]
Received data are saved. Refer to “7.3 How to save measured data” for details.
- [CSV file output]
Received data will be exported in CSV file format. Refer to “10.4 How to import/export other CSV file” for details.
- [Close]
Click [Close], when you exit without saving received data.

7.2 How to change measured date, time zone, postprandial marker

You can change time zone or a status of postprandial marker of measured data which are received from a meter. If it is not necessary, go on to “7.3 How to save measured data”.

● Procedure

a) Change of Measured Date

Change date if you have a problem with measured data. (Ex. Wrong date)

1. Select a date which you want to change, then, double-click it.
2. Enter correct date.
3. Press Enter key.

b) Change of Time zone

Data which are measured in the same date and the same time zone (Ex. No.18, 19, 20 in the figure below) appear in blue. On each analysis display (Except for Main data display), only the latest data measured in the same time zone appears. Change time zone when you use both of them on each analysis display.

1. Click a time zone cell which you want to change.
2. You will see a drop-down list, and click a time zone you need on the list.

<Received data display>

The screenshot shows the 'Received data display' window. At the top, it displays 'ID: 1000' and 'Patient Name: Tom'. Below this, there are summary statistics: Average (175.51), Median (137.00), Max val (400), Min val (50), and Data count (35). The main table has columns: No, Date 1, Time, Glucose val, Mark, Date 2, Time zone, Before meal, Postprandial, Elapsed time, and Meal am. The table contains 31 rows of data. Rows 18, 19, and 20 are highlighted in blue. A dropdown menu is open for the 'Time zone' column of row 18, showing options: B.fast, Lunch, Dinner, Bef bed, and Late N. The right-hand panel contains a 'Save Data' button, a 'Close' button, a 'Redisplay' button, and a 'CSV file output' button. Below these are 'Time zone setting (necessary)' fields for B.fast (06:00), Lunch (11:00), Dinner (16:00), Bef bed (22:00), and Late N (01:00). There is also a 'Postprandial time' field and a 'Selection of data' section with radio buttons for 'Latest value' and 'Low value'.

No	Date 1	Time	Glucose val	Mark	Date 2	Time zone	Before meal	Postprandial	Elapsed time	Meal am
1	08/24/2010	05:30	50		08/23/2010	Late N				
2	08/24/2010	07:44	126		08/24/2010	B.fast	Y			
3	08/24/2010	09:23	254		08/24/2010	B.fast	Y			
4	08/24/2010	11:19	254		08/24/2010	Lunch	Y			
5	08/24/2010	13:56	229		08/24/2010	Lunch		Y		Full
6	08/24/2010	15:32	145		08/24/2010	Lunch				
7	08/24/2010	17:37	127		08/24/2010	Dinner				
8	08/24/2010	19:37	276		08/24/2010	Dinner		Y		Full
9	08/24/2010	23:09	163		08/24/2010	B.fast				
10	08/25/2010	01:05	132		08/24/2010	Lunch				
11	08/25/2010	06:12	80		08/25/2010	Dinner				
12	08/25/2010	07:46	80		08/25/2010	Bef bed		Y		80%
13	08/25/2010	12:46	298		08/25/2010	Late N		Y		
14	08/25/2010	12:59	600	Control	08/25/2010	Lunch				
15	08/25/2010	12:59	254		08/25/2010	Lunch				
16	08/25/2010	22:34	198		08/25/2010	Bef bed		Y	120 min	
17	08/26/2010	08:07	97		08/26/2010	B.fast				
18	08/26/2010	11:23	100		08/26/2010	Lunch				
19	08/26/2010	13:13	278		08/26/2010	Lunch				
20	08/26/2010	13:13	276		08/26/2010	Lunch				
21	08/27/2010	08:11	132		08/27/2010	B.fast				
22	08/27/2010	12:46	124		08/27/2010	Lunch				
23	08/27/2010	13:29	265		08/27/2010	Lunch		Y		
24	08/31/2010	01:22	137		08/30/2010	Late N				
25	08/31/2010	23:55	232		08/31/2010	Bef bed				
26	09/01/2010	02:22	137		08/31/2010	Late N				
27	09/01/2010	07:33	108		09/01/2010	B.fast				
28	09/01/2010	08:12	10	Control	09/01/2010	B.fast				
29	09/01/2010	10:21	97	Delete	09/01/2010	B.fast				
30	09/01/2010	12:22	123		09/01/2010	Lunch				
31	09/01/2010	13:41	128		09/01/2010	Lunch	Y			

3. Press [Redisplay] to have the screen redisplayed with the time zone you selected.
4. “Time zone Change” mark will be displayed.
5. Confirm that the time zone has been changed.

c) Change of postprandial marker

You can change the status of postprandial markers which you forgot to add or which are added by mistake.

1. When you click each cell of "Postprandial", "C" appears or disappears. "C" means postprandial.

<Received data display>

The screenshot shows a software window titled "Received data display". At the top, it displays "ID : 1000" and "Patient Name : Tom". Below this, there are summary statistics: Average (175.51), Median (137.00), Max val (400), Min val (50), and Data count (35). The main part of the window is a table with the following columns: No., Date 1, Time, Glucose val, Mark, Before meal, Postprandial, Elapsed time, Meal amount, After Ex, and Save. The table contains 31 rows of data, with some rows highlighted in yellow (e.g., row 14, 28, 29) and others in cyan. Row 14 is marked as "Control" and row 28 is marked as "Delete". The "Postprandial" column for row 22 contains a "C" in a box, and row 23 contains a "Y". To the right of the table, there are buttons for "Save Data", "Close", "Redisplay", and "CSV file output". Below these buttons, there are settings for "Time zone setting (necessary)" with fields for B.fast (06:00), Lunch (11:00), Dinner (16:00), Bef bed (22:00), and Late N (01:00). There is also a "Postprandial time" section and a "Selection of data" section with radio buttons for "Latest value" and "Low value".

No.	Date 1	Time	Glucose val	Mark	Before meal	Postprandial	Elapsed time	Meal amount	After Ex	Save
1	08/24/2010	05:30	50							<input checked="" type="checkbox"/>
2	08/24/2010	07:44	126		Y					<input checked="" type="checkbox"/>
3	08/24/2010	09:23	254		Y					<input checked="" type="checkbox"/>
4	08/24/2010	11:19	254		Y					<input checked="" type="checkbox"/>
5	08/24/2010	13:56	229			Y		Full		<input checked="" type="checkbox"/>
6	08/24/2010	15:32	145						Y	<input checked="" type="checkbox"/>
7	08/24/2010	17:37	127			Y		Full		<input checked="" type="checkbox"/>
8	08/24/2010	19:37	276							<input checked="" type="checkbox"/>
9	08/24/2010	23:09	163							<input checked="" type="checkbox"/>
10	08/25/2010	01:05	132							<input checked="" type="checkbox"/>
11	08/25/2010	06:12	80						Y	<input checked="" type="checkbox"/>
12	08/25/2010	07:46	80			Y		80%		<input checked="" type="checkbox"/>
13	08/25/2010	12:46	298			Y				<input checked="" type="checkbox"/>
14	08/25/2010	12:59	600	Control						<input checked="" type="checkbox"/>
15	08/25/2010	12:59	254							<input checked="" type="checkbox"/>
16	08/25/2010	22:34	198			Y	120 min			<input checked="" type="checkbox"/>
17	08/26/2010	08:07	97							<input checked="" type="checkbox"/>
18	08/26/2010	11:23	100							<input checked="" type="checkbox"/>
19	08/26/2010	13:13	278							<input checked="" type="checkbox"/>
20	08/26/2010	13:13	276							<input checked="" type="checkbox"/>
21	08/27/2010	08:11	132							<input checked="" type="checkbox"/>
22	08/27/2010	12:46	124			C				<input checked="" type="checkbox"/>
23	08/27/2010	13:29	265			Y				<input checked="" type="checkbox"/>
24	08/31/2010	01:22	137							<input checked="" type="checkbox"/>
25	08/31/2010	23:55	232							<input checked="" type="checkbox"/>
26	09/01/2010	02:22	137							<input checked="" type="checkbox"/>
27	09/01/2010	07:33	108						Y	<input checked="" type="checkbox"/>
28	09/01/2010	08:12	10	Control						<input checked="" type="checkbox"/>
29	09/01/2010	10:21	97	Delete						<input checked="" type="checkbox"/>
30	09/01/2010	12:22	123							<input checked="" type="checkbox"/>
31	09/01/2010	13:41	128		Y					<input checked="" type="checkbox"/>

2. Press [Redisplay] to have the screen redisplayed with changed information.
3. Confirm that postprandial marker has been changed.

7.3 How to save measured data

When you complete all necessary changes, save received data. If you click [Save data], only checked data in [Save] box are saved. Click [Close] when you quit without saving.

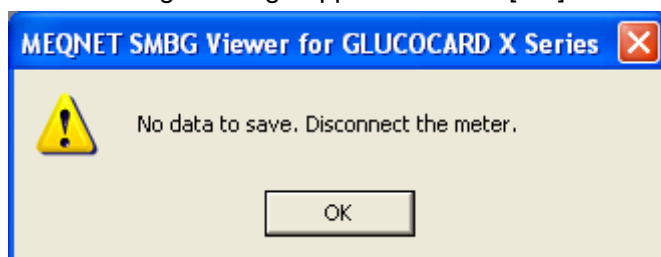
● Procedure

1. Confirm measured value which is newly received has a check mark in [Save] box.
2. Click [Save] box of data which you don't want to save to uncheck.
3. Click [Save Data].

<Received data display>

The screenshot shows the 'Received data display' window. At the top, it displays 'ID : 1000' and 'Patient Name : Tom'. Below this, there are summary statistics: Average (175.51), Median (137.00), Max val (400), Min val (50), and Data count (35). The main table lists 31 rows of data with columns: No, Date 1, Time, Glucose val, Mark, Before meal, Postprandial, Elapsed time, Meal amount, After Ex, and Save. The 'Save' column contains checkboxes, some of which are checked. On the right side, there are buttons for 'Save Data', 'Close', 'Redisplay', and 'CSV file output'. Below these buttons are settings for 'Time zone setting (necessary)' with fields for B.fast, Lunch, Dinner, Bef bed, and Late N. There is also a 'Postprandial time' section and a 'Selection of data' section with radio buttons for 'Latest value' and 'Low value'.

4. The following message appears. Click [OK].



8. Data Display

8.1 Data Table

<Data Table> is a main screen to consult glucose data in this software. On <Data table>, you can display/edit glucose data which are received/saved from the meter. Also, you can input daily memo on insulin, meal, exercise, weight etc. In addition, you can display analysis data or graphics from this screen.

*When you choose "Yes" for Reception data automatic display when you register basic information, <Data Table> appears immediately after the received data are saved.

* The instruction below is a case where the unit is set to mg/dL.

● Procedure

1. Click [Data Display] on <Main Menu>.

2. <Patient selection> appears.

Select a patient whose data you want to refer to, then, click [Select].

<Patient selection>

Sort	Check	ID	Patient Name	Memo	Latest Data	Last cfm	Abnormal H	Abnormal L	Highest	Lowest	Average
		1000	Tom		11/04/2010	11/04/2010	0	0	125	125	125.0
		2000	John		11/04/2010	11/04/2010	0	5	234	10	117.8
		500	Anne		10/29/2010	10/29/2010	0	5	234	10	106.0
\$		9999999999999999	Test Data 1 (mg/dl)		10/06/2003		2	0	330	95	198.9
#		9999999999999999	Test Data 2 (mg/dl)		04/04/2002		2	4	420	36	159.0

Contents of <Patient selection> (Impossible to input/change)

● Sort

You can sort the displayed contents in ascending order or descending order by clicking each index.

● Check

Warning mark is put to patients who deserve the following statuses.

: Hypoglycemia occurred more than twice in the same time zone in 1 week.

\$: Present warning period has passed since last confirmation day. (You can change warning period on <Basic information registration>.

● ID

ID number which is allocated at random on <Patient information registration>.

● Patient Name

Patient name which is allocated randomly on <Patient information registration>.

● Memo

Memo optionally input on <Patient information registration>.

● Latest Data (Last measurement day)

Newest measurement date in all saved glucose data which were received from a meter.

● Last cfm (Last confirmation day)

Date of the newest data confirmed on <Data table> in all saved glucose data which were received from a meter.

- Abnormal H (L)
Numbers of hyperglycemia (hypoglycemia) in the warning period* before the latest measurement day is displayed.
 - Highest (Lowest)
Highest (Lowest) glucose value in the warning period* before the latest measurement day is displayed.
 - Average
Average of glucose value in the warning period* before the latest measurement day is displayed.
- *warning period can be set by the user. Refer to “6.1 Basic Information Registration”.
3. <Data table> appears. Execute necessary operations.

<Data table>

</

* In this software, meter data displayed as “Lo” and “Hi” correspond to the following.

Meter data	Corresponding value (mg/dL)	Corresponding value (mmol/L)
Hi	600	33.3
Lo	10	0.6

How to operate <Data table> screen

- Period

On the initial display, all data in a period which is registered in <Basic information registration> are displayed.

You can change "Period" as you like in the following procedures. (Changed period on this screen is not saved. When you display this screen next time, "Period" will follow the setting in <Basic information registration>)

- ◆ How to change "Period"

1. Select the first date of "Period". Display calendar by clicking "Period" to select the first date.
2. Select the last date of "Period". Do as procedure 1 to select the date.
3. Click [Redisplay] to renew the contents.
4. If you change "Analysis Period", "Period" is changed too. This change is also reflected in <Basic Information Registration>.

- Contents of each displayed data

*You can input/change some data manually. However, data on <Data Table> are to correspond to data analysis. Use great care in inputting/changing data.

- ◆ Date (impossible to input/change)
Dates for display period appear.
- ◆ Glucose value (possible to input/change)
Glucose data which are received in [Data Reception] are categorized by 8 time zones; 6 zones before and after each meal (breakfast, lunch, dinner), plus 2 zones (Before bedtime and Late at night). Double-click each cell to input/change glucose data.
- ◆ Insulin (possible to input/change)
Double-click each cell to input/change insulin.
- ◆ Meal (possible to input/change)
You can select quantity of each meal (breakfast, lunch, dinner) from Heavy, Normal, Light. (X-mini plus is Full, 80%, 50%)
Click each cell to select from drop-down menu list. Select blank when you cancel the input.
- ◆ Ex (possible to input/change)
You can select amount of exercise of the day from Heavy, Normal, Light. Click each cell to select from the list. Select blank when you cancel the input.
- ◆ Weight (possible to input/change)
You can input weight to one place of decimals. Double-click each cell to enter/change.
- ◆ Dr.'s Comment (possible to input/change)
You can input/change daily comments to patients.
When you check "No" on "Comment mail transmission" in <Basic information registration>, <Dr's Comment> window appears by double-clicking each cell. Close the display after comment input.
When you check "Yes", <Comment transmission> is displayed by double-click on each cell. Input a comment and click [Transmission] to send e-mail to the address which has been registered in <Basic information registration>.
In addition, you can attach tables or graphs by checking attached file.

Click [Close] when you don't send the comment.

<Comment transmission>

Comment transmission

Attention Tom

Mail address

Attached file

<input type="checkbox"/> All graphs	<input type="checkbox"/> Time series graph	<input type="checkbox"/> Time zone graph	<input type="checkbox"/> Data table
<input type="checkbox"/> Comparative graphs <time series>	<input type="checkbox"/> Comparative graphs<time zone>	<input type="checkbox"/> Comparative Histogram	<input type="checkbox"/> Graphs of each day of the week
<input type="checkbox"/> Meter all graphs	<input type="checkbox"/> Meter time series graph	<input type="checkbox"/> Meter time zone graph	<input type="checkbox"/> Meter data table

Transmission Close

- * Comment mail cannot be transmitted unless you enter e-mail address on <Patient Information Registration>.
- * To create and send comment mail, use Outlook Express. Other e-mail software does not support the system.
- * Contact your provider for details in setting up the Outlook Express.
- ◆ Summary (impossible to input/change)
Maximum, Minimum, Median, Average, Deviation, n (measurement count) in each time zone and all data. They are summed in the period which is displayed presently.

Contents of <Data table>

- ◆ [Redisplay]
Table for a period which is set as "Period" is displayed.
- ◆ [Save]
Input/changed contents are saved.
- ◆ [Display switching]
The screen switches to 2 types.
 - 1) Display of Items of "Insulin", "Meal", "Exercise" "Weight" and "Patient's memo".
(Initial setting)
 - 2) Hiding of Items of "Insulin", "Meal" and "Exercise".
- ◆ [Print]
<Data table> is printed. When you check "Yes" on "Print preview" in <Basic information registration>, <Print preview> is displayed. Click [Print] on <Print preview> to print.
- ◆ [Patient information]
<Patient information registration> appears. You can change patient information.
- ◆ [Basic information]
<Basic information registration> appears. You can change basic information.
- ◆ [Close]
<Data table> is closed.
- ◆ [SMBG data analysis]
<Data analysis> appears. Refer to "8.2 SMBG Data Analysis" for details.
- ◆ [Meter data]
<Meter data table> appears. Refer to "8.3 Meter Data Table" for details.

- ◆ [Comparative graphs <time series>]
<Comparative graphs <time series>> appears. Refer to “8.4 Various Graphs” for details.
- ◆ [Comparative graphs <time zone>]
<Comparative graphs <time zone>> appears. Refer to “8.4 Various Graphs” for details.
- ◆ [Comparative Histogram]
<Comparative Histogram> appears. Refer to “8.4 Various Graphs” for details.
- ◆ [Graphs of each day of the week]
<Graphs of each day of the week> appears. Refer to “8.4 Various Graphs” for details.
- ◆ [Other data]
<Other data input and reference> appears. Refer to “11.1 How to manage data other than glucose value” for details.
- ◆ [Weight graph]
<Weight graph> appears.
- ◆ [CSV file import], [CSV file export]
Data on <Data table> can be imported/exported as CSV file. Refer to “10.4 How to import/export other CSV files” for details.

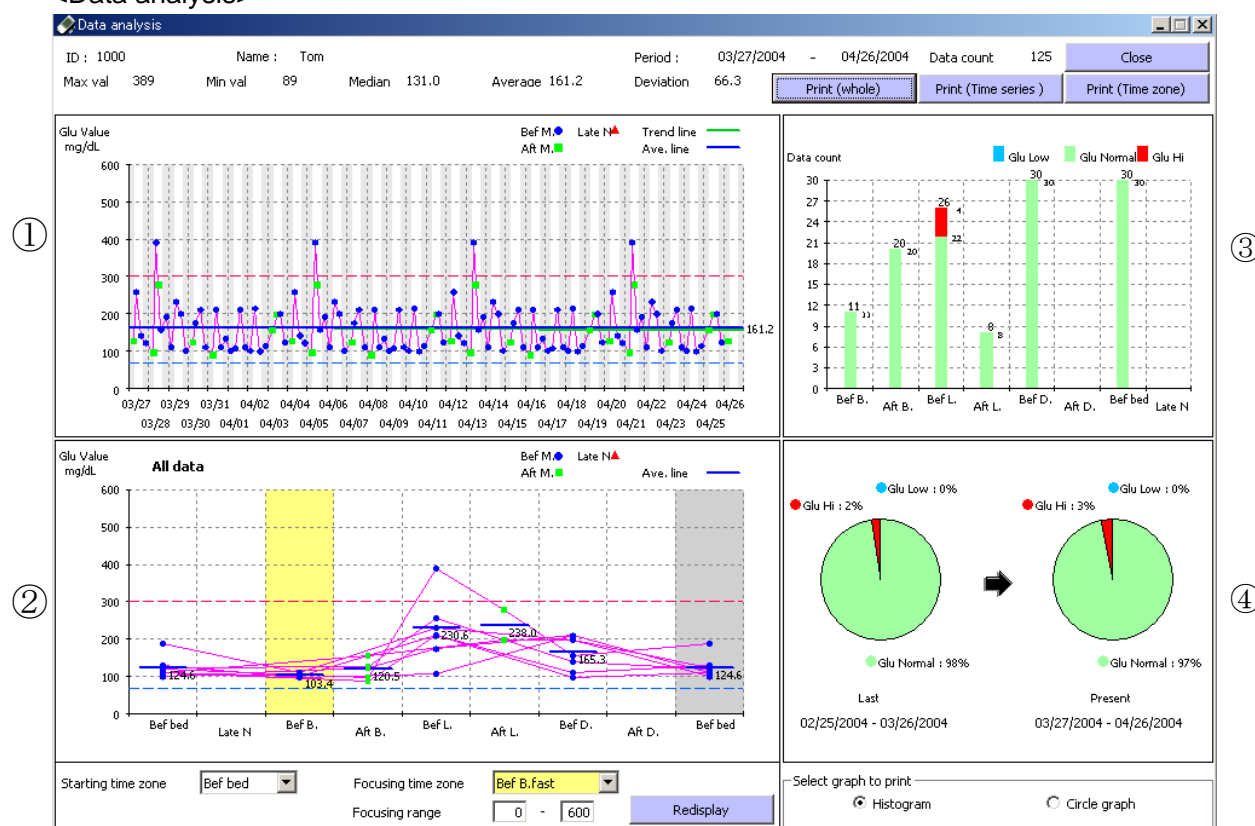
8.2 SMBG Data Analysis

<Data analysis> enables you to analyze glucose data which are displayed in <Data table>. Comparative <time series>, Comparative <time zone>, Histogram, Circle graph based on data on <Data table>.

* The instruction below is a case where the unit is set to mg/dL.

- Procedure
- 1. Click [Data Display] on <Main Menu>.
- 2. <Patient selection> appears. Select a patient whose data you want to refer to, then, click <Select>.
- 3. <Data table> appears. Click [SMBG data analysis] on <Data table>.
- 4. <Data analysis> appears. Execute necessary operations.

<Data analysis>



Screen operations on <Data analysis> screen

- Each graph can be zoomed by double-click. Double-click again to return zoomed graph to original size.

Description of each graph

- Time series graph (① in the figure)
X axis represents date and Y axis represents glucose value. You can see how daily glucose value fluctuates from this graph.
- Time zone graph (② in the figure)
X axis represents time zone and Y axis represents glucose value. Number in () represents No of glucose values which consists each graph. (It doesn't contain data in gray zone.)

You can select 4 time zones as “starting time zone” from a drop-down list.

By selecting “Focusing time zone” and entering “Focusing range”, measured glucose values only within the range of “Focusing range” in the selected time zone will be displayed. If there are data measured on the same day as selected data in other time zone, they will also be displayed.

For example, you can focus on the day when you had hypoglycemia in the morning.

- Histogram (③ in the figure)

Levels of glucose (high, low, normal) are displayed on histogram.

- Circle graph (④ in the figure)

Levels of glucose (high, low, normal) are displayed on percentage. You can see the rates of abnormal glucose value easily with comparison between “present” graph and “last” graph that shows the results for the same length of period as “present” graph.

* In Time series graphs and Time zone graphs, abnormal value is displayed as below.

Abnormal value (high) B. fast, Lunch, Dinner → Red chain double-dashed line (— · · —)

Abnormal value (high) Bef bed, Late N → Red chain single-dashed line (- · - · -)

Abnormal value (low) B. fast, Lunch, Dinner → Blue chain double-dashed line (— · · —)

Abnormal value (low) Bef bed, Late N → Blue chain single-dashed line (- · - · -)

Contents of <Data analysis>

- [Close]

<Data analysis> is closed.

- [Print] (whole/Time series/Time zone)

Click [Print (whole)], [Print (Time series)], or [Print (Time zone)] to print necessary graph.

If you have checked “Yes” for “Print preview” on <Basic information registration>, <Print preview> is displayed before printing. Click [Print] on <Print preview> to print out.

* Histogram and circle graph cannot be printed at the same time. Select either of the two on “Select graph to print” on the bottom-right corner of the screen.

8.3 Meter Data Table

<Meter data table> displays Glucose data and summary for the set period.

All glucose data in the same date and time zone are displayed on <Meter data table>. You can consult data which are not displayed on <Meter table>.

* The instruction below is a case where the unit is set to mg/dL.

● Procedure

1. Click [Data Display] on <Main Menu>.
2. <Patient selection> appears. Select a patient whose data you want to refer to, then, click [Select].
3. <Data table> appears. Click [Meter data] on <Data table>.
4. <Meter data table> appears. Execute necessary operations.

*You can input/change some data manually. However, data on [Data Display] are to correspond to data analysis. Use great care in inputting/changing data.

<Meter data table>

Meter data table

ID : 1000 Name : Tom

Period : 08/06/2010 - 09/05/2010 Redisplay

Date	Time	Time zone	Measured value	Before meal	Postprandial	Elapsed time	Meal amount	After Ex.	DEL
08/24/2010 (Tue)	05:30	Late N	50						
08/24/2010 (Tue)	07:44	B.fast	126	Y					
08/24/2010 (Tue)	09:23	B.fast	254	Y					
08/24/2010 (Tue)	11:19	Lunch	254	Y					
08/24/2010 (Tue)	13:56	Lunch	229		Y		Full		
08/24/2010 (Tue)	15:32	Lunch	145		A			Y	
08/24/2010 (Tue)	17:37	Dinner	127						
08/24/2010 (Tue)	19:37	Dinner	276		Y		Full		
08/24/2010 (Tue)	23:09	Bef bed	163						
08/25/2010 (Wed)	01:05	Late N	132						
08/25/2010 (Wed)	06:12	B.fast	80					Y	
08/25/2010 (Wed)	07:46	B.fast	80		Y		80%		
08/25/2010 (Wed)	12:46	Lunch	298		Y				
08/25/2010 (Wed)	12:59	Lunch	254						
08/25/2010 (Wed)	22:34	Bef bed	198		Y	120 min			
08/26/2010 (Thu)	08:07	B.fast	97		A				
08/26/2010 (Thu)	11:23	Lunch	100						
08/26/2010 (Thu)	13:13	Lunch	278		A				
08/26/2010 (Thu)	13:13	Lunch	276		A				
08/27/2010 (Fri)	08:11	B.fast	132		C				
08/27/2010 (Fri)	12:46	Lunch	124						
08/27/2010 (Fri)	13:29	Lunch	265		Y				
08/31/2010 (Tue)	01:22	Late N	137						
08/31/2010 (Tue)	23:55	Bef bed	232						
09/01/2010 (Wed)	02:22	Late N	137						
09/01/2010 (Wed)	07:33	B.fast	108					Y	
09/01/2010 (Wed)	10:21	B.fast	97		A				Delete
09/01/2010 (Wed)	12:22	Lunch	123						
09/01/2010 (Wed)	13:41	Lunch	128	Y					
09/03/2010 (Fri)	08:00	B.fast	123		A				
09/03/2010 (Fri)	18:00	Dinner	200		A				

Summary		
Maximum	Period max value	:400
Minimum	Period min value	: 50
Median	Period median	:137.0
Average	Period average	:174.8
Deviation	Period standard deviation	: 81.4
n	Period measurement n	: 37

Time zone setting (necessary)

Bef B.fast 06:00 -

Aft B.fast 08:00 -

Bef Lunch 11:00 -

Aft Lunch 13:00 -

Bef Dinner 16:00 -

Aft Dinner 18:00 -

Bef bed 22:00 -

Late N 01:00 -

☒ Postprandial time

Selection of data

☒ Latest value ☐ Low value

Meter data analysis

Save (Postprandial "C")

Save (Time zone)

CSV file import CSV file export

* In this software, meter data displayed as “Lo” and “Hi” correspond to the following.

Meter data	Corresponding value (mg/dL)	Corresponding value (mmol/L)
Hi	600	33.3
Lo	10	0.6

Description of <Meter data table>screen

- Date/Time (Impossible to input/change)
Date and time when glucose values are measured.
- Time zone (Changeable)
Category of time when glucose values are measured.
To change the Time zone, click the Time zone cell and select an item from the drop-down menu.
New Time zone will be indicated in light green cell and “Time zone Change” mark will be displayed.
To restore the initial Time zone setting, double-click the Time cell next to the Time zone cell.
- Before meal
Mark “Y”: The glucose data with before meal mark is displayed “Y” automatically to the data measured in preprandial time zones such as “before breakfast”, “before lunch” or “before dinner”. (X-mini plus only)
- Measured value (Impossible to input/change)
Glucose values which are received from the meter.
- Postprandial (Changeable)
Mark to indicate “after-meal” data. If you click a column, “A” mark, “Y” mark and “C” mark are displayed or hidden.
Mark “A”: If you check <Postprandial time>, mark “A” will automatically be assigned to the data measured in postprandial time zones such as “after breakfast”, “after lunch” or “after dinner”.
Mark “C”: If you click any cell in the “Postprandial” column, mark “C” will be indicated in the cell.
Mark “Y”: The glucose data with after meal mark data is displayed “Y” automatically to the data measured in postprandial time zones such as “after breakfast”, “after lunch” or “after dinner”. (X-mini plus only)
- Elapsed time
The glucose data with clock counter mark is displayed “elapsed time” automatically.
(X-mini plus only)
- Meal amount
The glucose data with meal amount mark is displayed “50%”, “80%” or “Full” automatically.
(X-mini plus only)
- After Ex.
Mark “Y”: The glucose data with after exercise mark is displayed “Y” automatically.
(X-mini plus only)

- DEL (Changeable)
You can delete displayed data. Deleted data shows “Delete (Software)”.
If you click a DEL column, “Delete (Software)” mark is displayed or hidden.
* When a glucose value with “DEL” mark is received, “Delete” appears in a DEL column on <Meter data table>. “Delete” mark will not disappear at click on the column.

Time zone setting (necessary)

- Data assignment to each time zone and setting of after-meal categorization.
Refer to “6.2 Patient Information Registration” for detail.

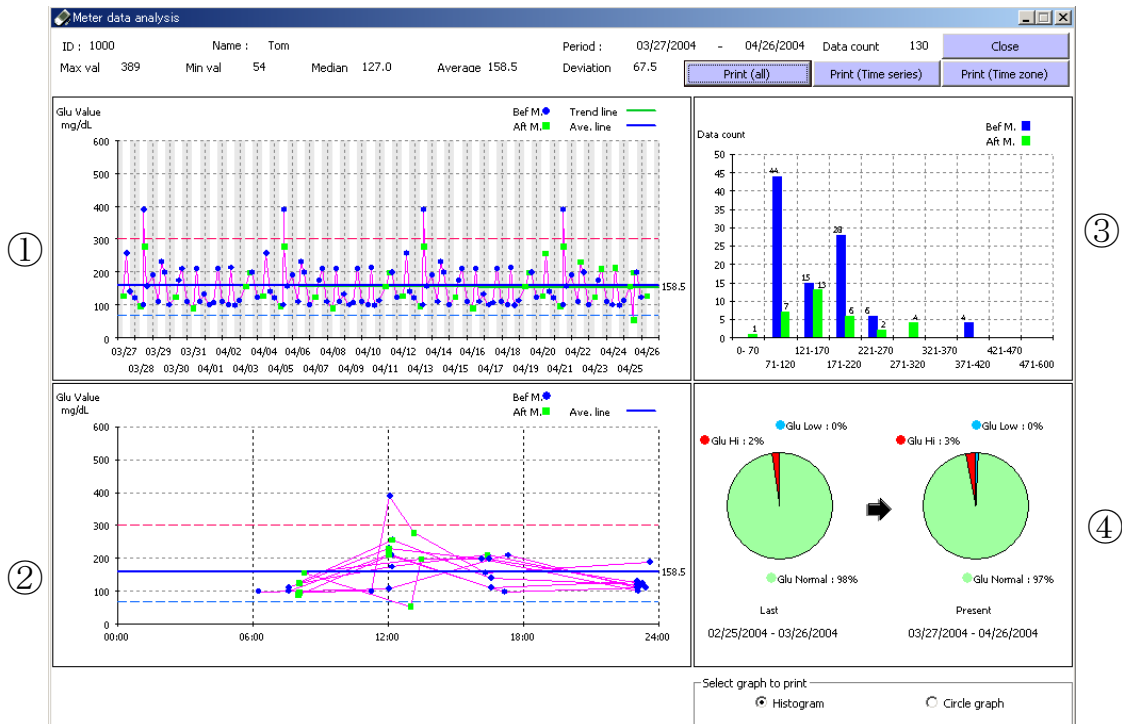
Contents of <Meter data table>

- [Redisplay]
Table for the period which has been set in “Display Period” is displayed. Refer to “8.1 Data table” for details.
- [Close]
<Meter data table> is closed.
- [Print]
You can print <Meter data table>. If you have checked “Yes” for “Print preview” on <Basic information registration>, <Print preview> is displayed before printing. Click [Print] on <Print preview> to print out.
- [Meter data analysis]
<Meter data analysis> appears.
- [Save (Postprandial “C”)]
Changed items on the data table are saved without saving the modification for time zone setting.
- [Save (Time zone)]
Modifications for time zone setting are saved.
- [CSV file import], [CSV file export]
CSV file can be imported or exported. Refer to “10.4 How to import/export other CSV files” for details.

5. Meter data analysis

<Meter data analysis> enables you to analyze glucose data which are displayed in ① Comparative <time series>, ② Comparative <time zone>, ③ Histogram, ④ Circle graph based on data on <Meter data table>.

<Meter data analysis>



Operations of <Meter data analysis>Screen

- Each graph can be zoomed by double-click. Double-click again to return zoomed graph to original size.

Description of each graph

- Time series graph (① in the figure)**
X axis represents date and Y axis represents glucose value. You can see how daily glucose value fluctuates on this graph.
- Time zone graph (② in the figure)**
X axis represents time and Y axis represents glucose value. You can analyze fluctuations of glucose value in each time zone.
- Histogram (③ in the figure)**
X axis represents glucose level and Y axis represents data count.
On this histogram, before-meal glucose data and after-meal glucose data are separately displayed.
- Circle graph (④ in the figure)**
Levels of glucose (high, low, normal) are displayed on percentage. You can see the rates of abnormal glucose values easily with comparison between "present" graph and "last" graph that shows the results for the same length of period as "present" graph.

* In Time series graphs and Time zone graphs, abnormal value is displayed as below.

- Abnormal value (high) B. fast, Lunch, Dinner → Red chain double-dashed line (— · · —)
- Abnormal value (high) Bef bed, Late N → Red chain single-dashed line (— · — · —)
- Abnormal value (low) B. fast, Lunch, Dinner → Blue chain double-dashed line (— · · —)
- Abnormal value (low) Bef bed, Late N → Blue chain single-dashed line (— · — · —)

Contents of <Data analysis>

- [Close]
<Data analysis> is closed.
- [Print] (whole/Time series/Time zone)
Click [Print (whole)], [Print (Time series)], or [Print (Time zone)] to print necessary graph.
If you have checked “Yes” for “Print preview” on <Basic information registration>, <Print preview> is displayed before printing. Click [Print] on <Print preview> to print out.
* Histogram and circle graph cannot be printed at the same time. Select either of the two on “Select graph to print” on the bottom-right corner of the screen.

8.4 Various Graphs

You can display various comparative graphs. You can compare “present” graph for “present” period which is displayed on <Data table> and “last” graph for the same length of period as “present” graph in “Comparative graphs <time series>”, “Comparative graphs <time zone>” and “Comparative Histogram”. Also, you can compare data in the same day of the week in “Graphs of each day of the week”.

* The instruction below is a case where the unit is set to mg/dL.

● Procedure

1. Click [Data Display] on <Main Menu>.
2. <Patient selection> appears. Select a patient whose data you want to refer to, then, click [Select].
3. <Data table> appears. Click [Comparative graphs <time series>], [Comparative graphs <time zone>], [Comparative Histogram] or [Graphs of each day of the week].
4. Each comparative graph appears. Execute necessary operations.

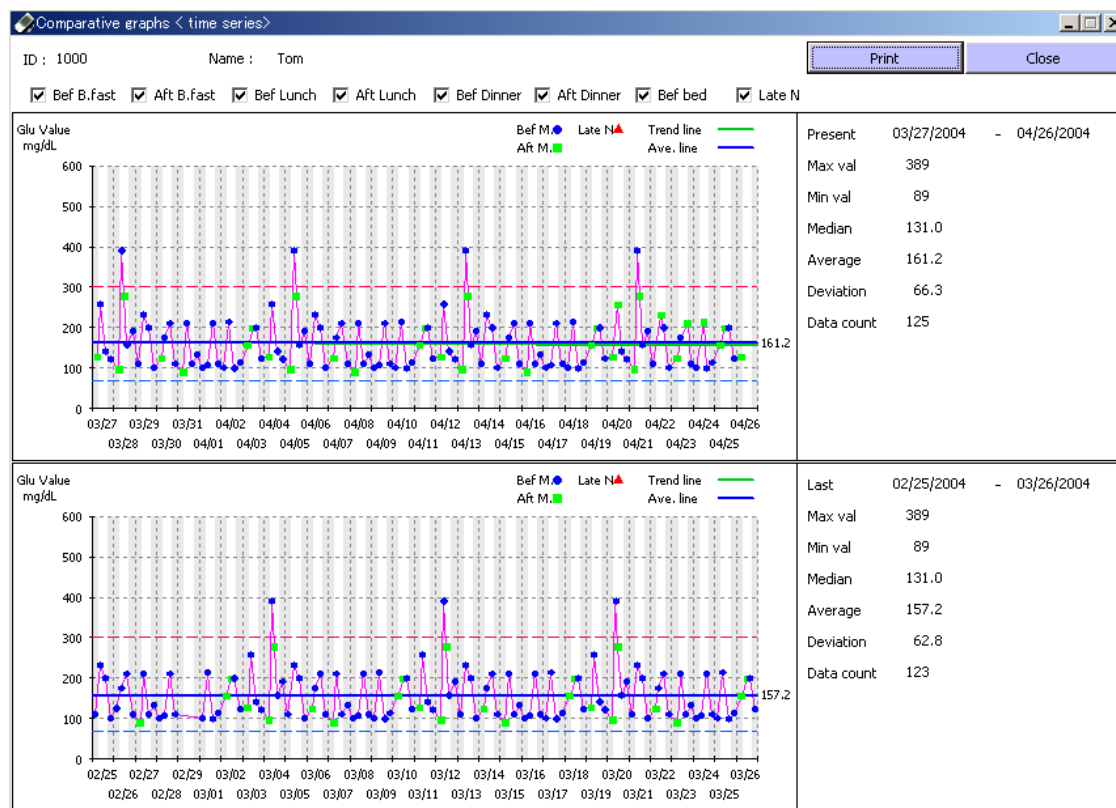
Contents of each graph

● <Comparative graphs –time series->

X axis represents date and Y axis represents glucose value in this graph. You see two graphs: “present” graph and “last” graph that shows results for the same length of period as “present” period. You can compare fluctuations of glucose value for a certain period easily.

Checked time zone data are displayed as graph data points.

<Comparative graphs –time series->

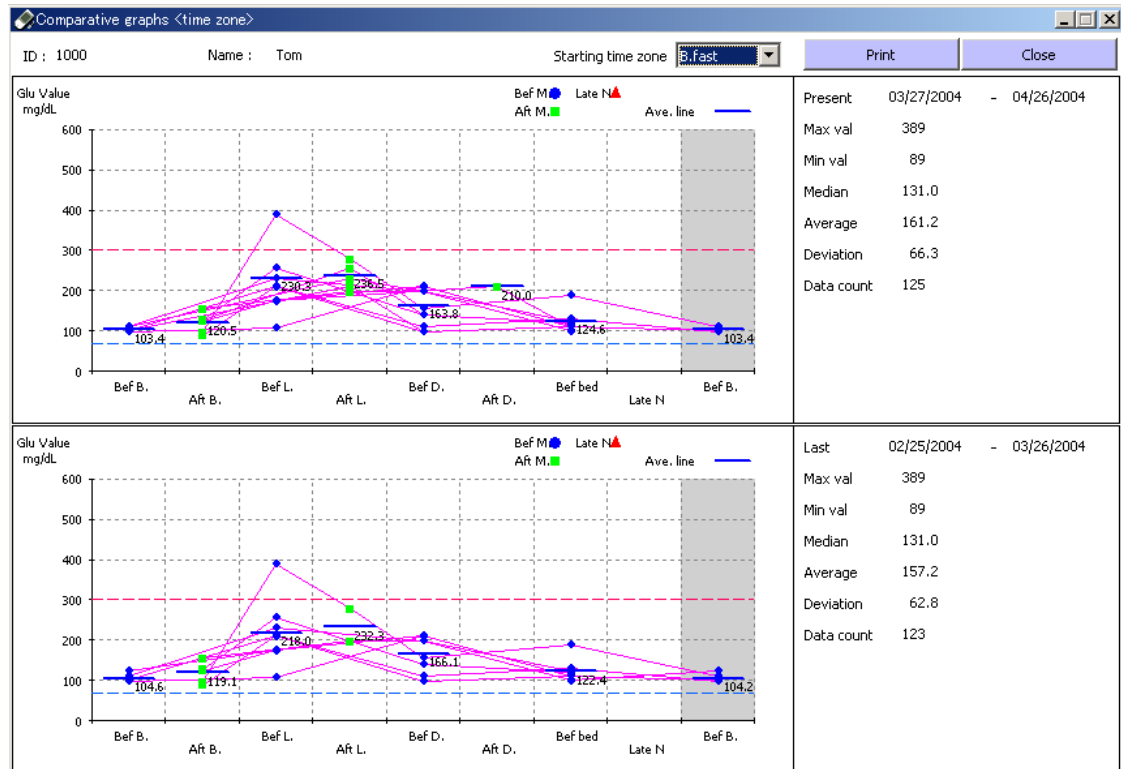


- <Comparative graphs –time zone->

X axis represents time zone and Y axis represents glucose value in this graph. Graphs of “present” period and “last” period are displayed. You can compare how glucose value fluctuates in a day with your lifestyle. In addition, summary of each period gives you better understanding for your glucose value condition.

You can select 4 time zones as “starting time zone” from a drop-down list.

<Comparative graphs –time zone->



- <Comparative Histogram>

X axis represents time zone and Y axis represents data count for glucose value on this histogram. Histograms for “present” period and “last” period are displayed.

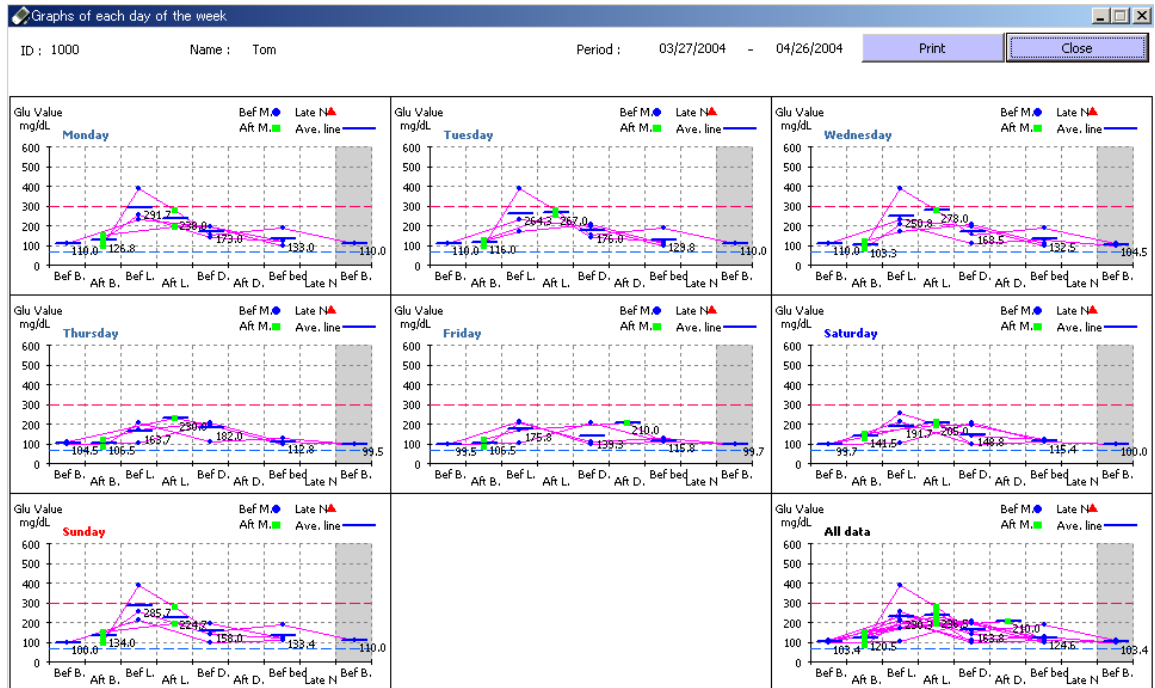
<Comparative Histogram>



- <Graphs of each day of the week>

Glucose values of each day of the week (Monday to Sunday) are displayed on this graph. If you have a rough plan such as a day off or an exercise on certain days of the week, you can use this graph to monitor how your glucose values differ. In addition, as glucose values of the next morning are displayed, you can see your glucose fluctuation while you are sleeping.

<Graphs of each day of the week>



* You can print each graph by clicking [Print].

When you want to finish the section, click [Close].

* In “Comparative graphs <time series>”, “Comparative graphs <time zones>” and “Graphs of each day of the week”, abnormal values are displayed as below.

Abnormal value (high) B. fast, Lunch, Dinner → Red chain double-dashed line (— · · —)

Abnormal value (high) Bef bed, Late N → Red chain single-dashed line (- · · -)

Abnormal value (low) B. fast, Lunch, Dinner → Blue chain double-dashed line (— · · —)

Abnormal value (low) Bef bed, Late N → Blue chain single-dashed line (- · · -)

9. Database Setting

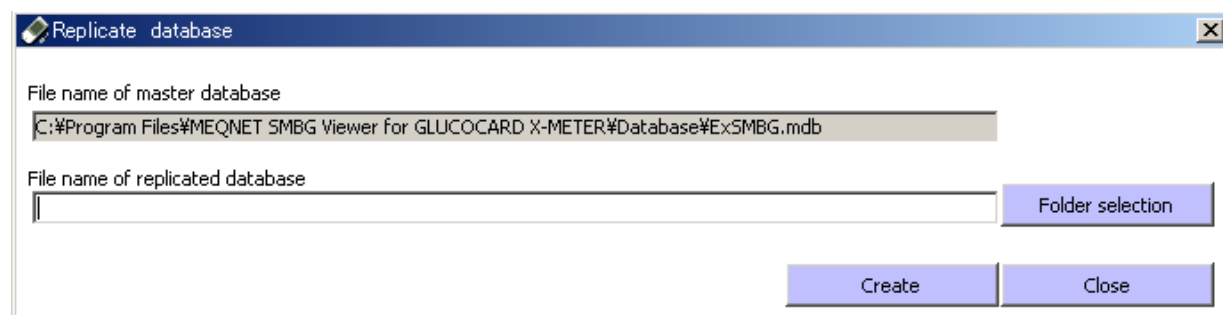
9.1 How to replicate database

Database in this software is very important. You are recommended to replicate it regularly in case of damage or deletion.

● Procedure

1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears. Click [Replicate database] on <Maintenance Menu> to display <Replicate database>.

<Replicate database>



2. Click [Folder selection] on <Replicate database> to specify a destination folder or file name.
3. Click [Create] to replicate. The following message appears when replication is completed, then, click [OK].



4. This is the end of replication of database.

9.2 How to change location of database

When this software is shared by a number of computers, for easy management, it is better to relocate database to a shared drive on network.

*Be sure to protect personal information when you move database to such a shared drive on network.

● Procedure

1. Replicate the database as "ExSMBG.MDB" in a transmission folder. Refer to "9.1 How to replicate database" for details.
2. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears. Click [Relocate database] on <Maintenance Menu> to display <Relocate database location>.

<Relocate database location>



3. Click [Folder selection] on <Relocate database location> to select replicated file which has been created in procedure 1 as a transmission folder.
4. If you click [Save], the following message appears. Click [OK]. When you quit without saving click [Close].



5. This is the end of relocation of database location.

10. CSV File

10.1 What is CSV file?

CSV file is one of file formats, which can be consulted /edited using Microsoft Excel or Notepad. You can save/import received data, manually input data or patient information in CSV file using this software.

*Data on [CSV file] are to correspond to data analysis.
Use great care in inputting/changing data.

*Please set the delimiter for CSV file depending on your Windows decimal symbol setting as follows.

- a) If the Windows decimal symbol setting is comma (,), please use semicolon (;) as the CSV delimiter.
- b) If the Windows decimal symbol setting is period (.), please use comma (,) as the CSV delimiter.

10.2 How to import patient information from CSV file

You can import patient information from CSV file to manage using this software. You can import patient data which are constructed by the mission-critical system (such as receipt computer, electronic medical chart) together and manage them in this software using this function.

● Procedure

1. Set format for import

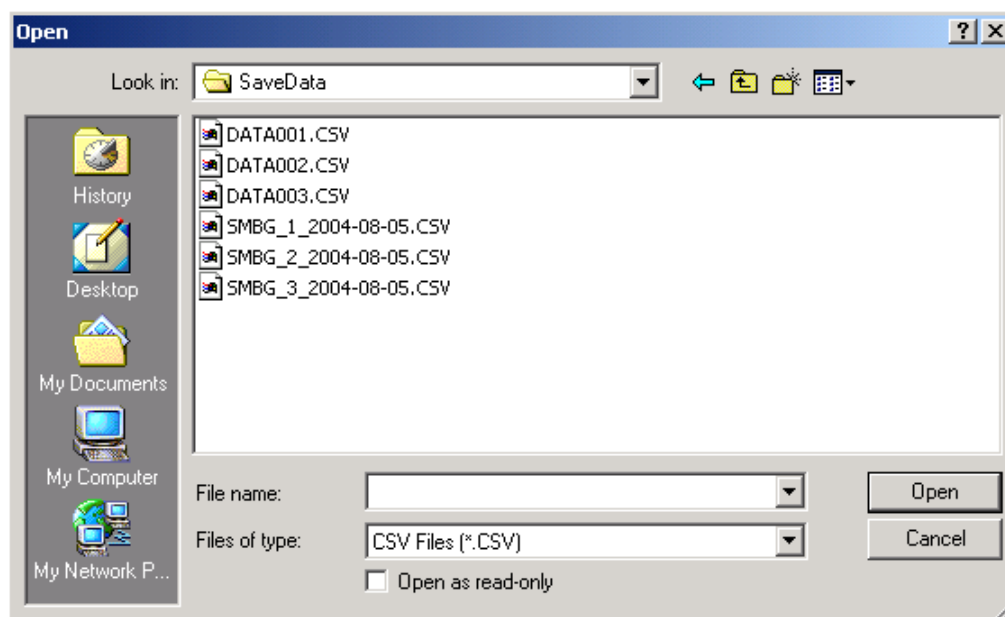
Prior to using this function, you need to set the format as follows:

- Leave the first row blank. Start input from the second row.
- Set each patient information on every row.
- You need not to input item names such as "Patient ID" or "Patient name". Enter only patient information.
- Be sure to set information on "Patient ID".
- Input other information optionally; Patient name, Memo, Date of birth, Gender, Diabetes type (1.Type I 2.Type II 3.others), Serial No, Postal code, Address, Phone number, Fax number, e-mail address, Contact person, Contact phone number, Max. glucose level, Min. glucose level, Morning time, Day time, Evening time, Before bed time, Midnight time.
 - * Refer to "6.2 Patient Information Registration" for details.
 - * Input Diabetes type in 1, 2, 3.

<Example of CSV file input>

	Patient ID	Patient name	Birthday	Gender	Meter serial number	Postal	Address	Contact person		
	A	B	C	D	E	F	G	H	I	J
1										
2	500	Taro Kyoto	4/19/1968	M	1134567	444-5555	Minami-ku, Kyoto	Gion Sangyo		
3	501	Ichiro Hyogo	3/20/1975	M	1134568	666-8888	Sasayama-shi, Hyogo	Barber Yamada		
4	502	Shikamaru Nara	12/29/1940	M	1134569	777-7777	Tenri-shi, Nara	Restaurant Yamato		
5	503	Rie Osaka	5/5/1987	F	1134570	333-9999	Amagasaki-shi, Osaka	Book shop Naniwa		
6										
7										
8										

2. Confirm that the form is set correctly. Then, save the file in CSV format.
3. Import of patient information.
When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears.
Click [CSV patient data import] on <Maintenance Menu>.
4. Click [Read] after <CSV patient data import> appears. Select a file which contains patient data in the order; drive, folder, file. Then, click [Open] to read data.



5. Patient information appears. The information set in the rows and columns in "procedure 1" has been switched with each other at this time.

<CSV patient data import>

The screenshot shows a window titled "CSV patient data import". It contains a table with 4 columns and 10 rows of patient data. Above the table are four buttons: "Read", "Item selection", "Save", and "Close". Below the table is a text field labeled "File to read" with the path "C:\Program Files\MEQNET SMBG Viewer\SaveData\excel_SMBG.csv".

	500	501	502	503
	Taro Kyoto	Ichiro Hyogo	Shikamaru Nara	Rie Osaka
	4/19/1968	3/20/1975	12/29/1940	5/5/1987
	M	M	M	F
	1134567	1134568	1134569	1134570
	444-5555	666-8888	777-7777	333-9999
	"Minami-ku	"Sasayama-shi	"Tenri-shi	"Amagasaki-shi
	Kyoto"	Hyogo"	Nara"	Osaka"
	Gion Sangyo	Barber Yamada	Restaurant Yamato	Book shop Naniwa

File to read C:\Program Files\MEQNET SMBG Viewer\SaveData\excel_SMBG.csv

6. When you click [Item selection], a drop-down menu list appears in the column at left end to set each item. Apply each of information which you input to items of patient information to be used in this software from the list.

<CSV patient data import>

The screenshot shows the same "CSV patient data import" window, but with a drop-down menu open on the left side of the table. The menu lists various patient information fields: No, Patient ID, Patient name, Memo, Date of birth, Gender, Diabetes type, Serial No, Postal code, Address, Phone number, Fax number, e-mail address, and Contact address. The table data remains the same as in the previous screenshot.

	500	501	502	503
No	Taro Kyoto	Ichiro Hyogo	Shikamaru Nara	Rie Osaka
Patient ID	4/19/1968	3/20/1975	12/29/1940	5/5/1987
Patient name	M	M	M	F
Memo	1134567	1134568	1134569	1134570
Date of birth	444-5555	666-8888	777-7777	333-9999
Gender	"Minami-ku	"Sasayama-shi	"Tenri-shi	"Amagasaki-shi
Diabetes type	Kyoto"	Hyogo"	Nara"	Osaka"
Serial No	Gion Sangyo	Barber Yamada	Restaurant Yamato	Book shop Naniwa
Postal code				
Address				
Phone number				
Fax number				
e-mail address				
Contact address				

File to read C:\Program Files\MEQNET SMBG Viewer\SaveData\excel_SMBG.csv

7. Click [Save] to save patient information.
8. Confirm whether or not patient information is imported from CSV file correctly on <Patient information registration>. Add more information, if necessary.

*In case the same patient ID or the same serial No. has already been registered, patient information cannot be imported. Make sure no patient IDs or serial numbers are overlapped between patient information in CSV file and patient information already registered.

10.3 How to import/export patient glucose data from/to CSV file

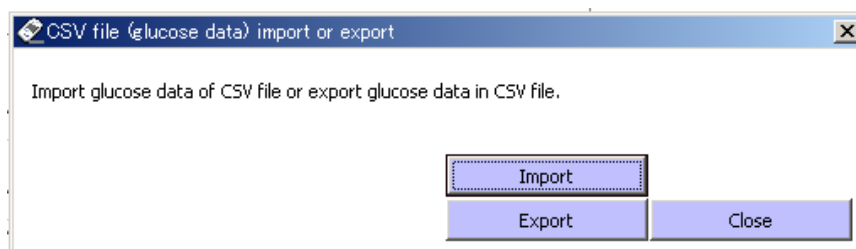
You can import specific patients' glucose data from CSV file or export the data to CSV file.

*Caution: If you import data of the same date which have already been in this software, the existing data of the day are overwritten.

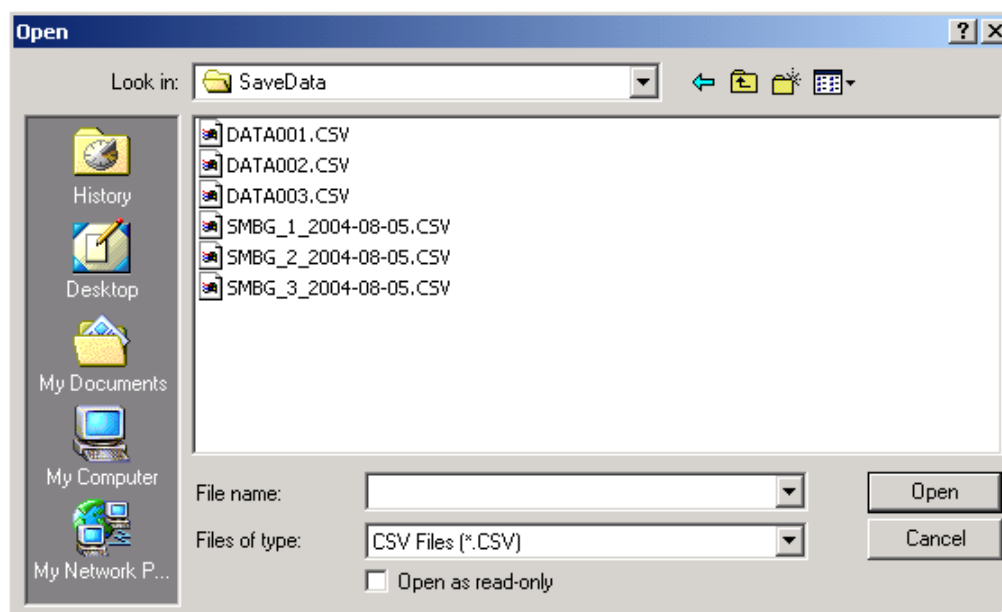
● Procedure

1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears. Click [Patient information registration] on <Maintenance Menu> to display <Patient information registration>.
2. Select patient whose data you want to import/export in CSV file format. Then, click [CSV file (glucose data) import or export].
3. Click [Import] or [Export].

<CSV file (glucose data) import or export>



4. When you import CSV file, select CSV file, then, click [Open]. When you save CSV file, enter the file name, then, click [Save].



5. Confirm that CSV file is imported correctly on <Data table> or exported correctly.

10.4 How to import/export other CSV files

You can also import/export CSV file from/to <Received data display>, <Data table>, <Meter data table>.

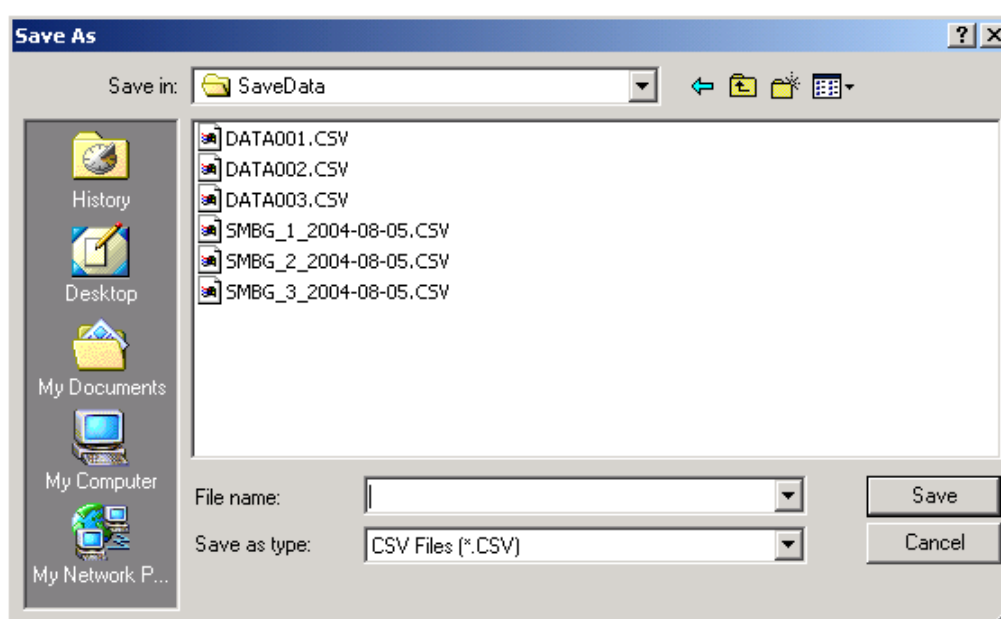
*Caution: If you import data of the same data which have already been in this software, the existing data of the day are overwritten.

- CSV file export to <Received data display>

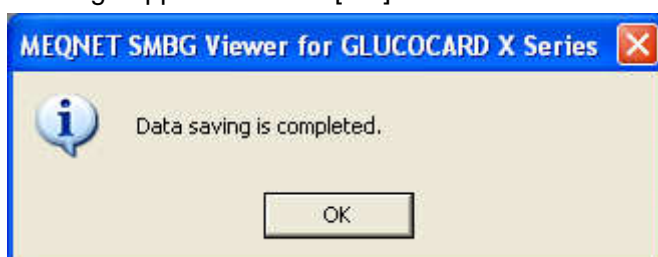
You can export only glucose data, which are received from a meter to CSV file.

* CSV file on <Received data display> is for export only. Note that you can not import it to this software.

1. Receive data from a meter referring to "7. Data Reception".
2. Click [CSV file export] on <Received data display> to display <Save as>



3. Specify the destination folder and the folder name, click [Save]. The following message appears. Click [OK].



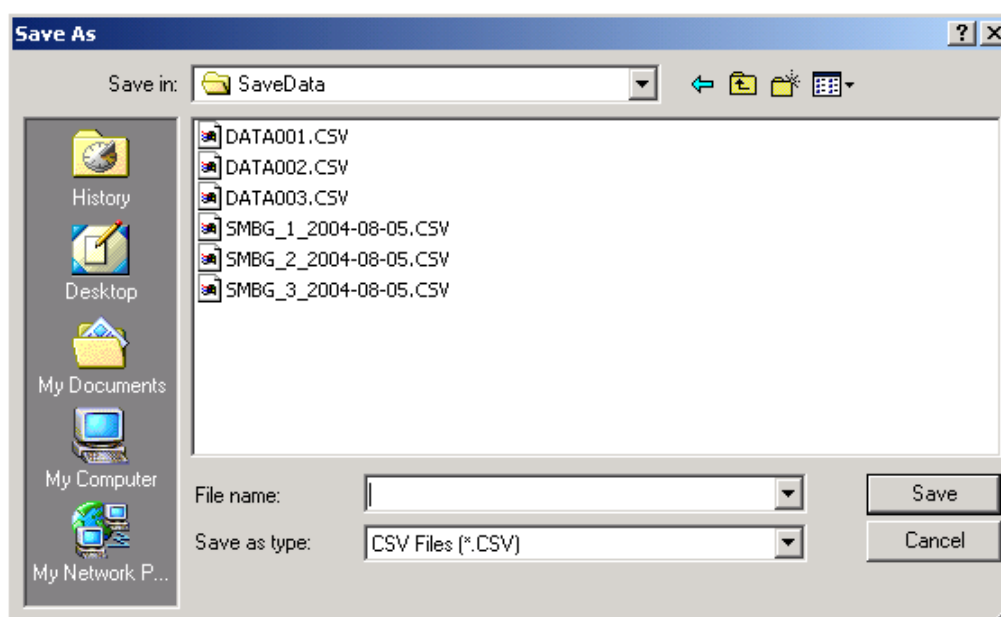
4. Confirm that the file is exported properly.

- CSV file export from <Data table>, <Meter data table>

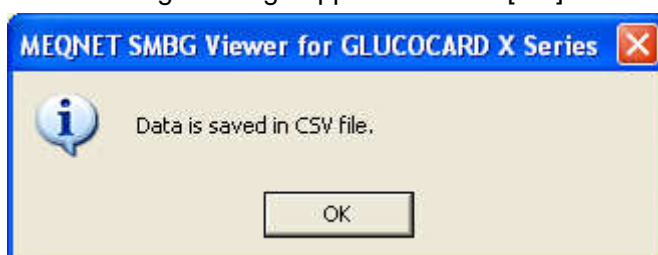
You can export data for the period displayed on <Data table>, <Meter data table> in CSV file.

1. Click [Data display] on <Main Menu>.
2. <Patient selection> appears. Select a patient whose data you want to refer to, then click [Select] to display <Data table>.
3. Click [CSV file export] on <Data table>.

4. Click [CSV file export] on <Data table> to export CSV file on <Data table>.
Or click [Meter data] on <Data table>, then click [CSV file export] to export CSV file on <Meter data table>.
5. <Save as> appears. Input file name and click [save].



6. The following message appears. Click [OK].



7. Confirm that the file is exported properly.

*The following data is saved at the CSV file.

<Meter data table>

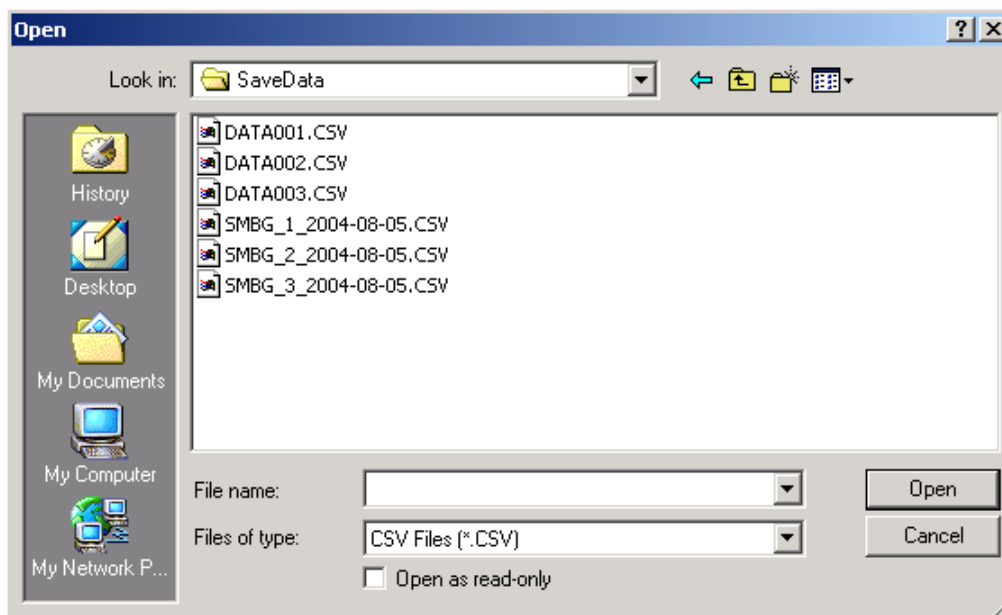
Items	Description
Date	Date assigned by this software according to a time zone when this software saved received measurement data.
Measurement time	Time when a measurement is performed.
Glu Value	Blood glucose value data received from the meter.
Mark	Mark assigned to measured values. (0:No mark, 1:Control, 2:Delete, 3:Abnormal temperature, 9:DEL)
Postprandial	Mark for postprandial measurement data. "A", "C" or "Y" is indicated in the "Postprandial" column of postprandial measurement data.
HYPO	Mark for hypoglycemia measurement data. "Y" is indicated in the "Measured value" column of hypoglycemia measurement data. (X-mini plus only)
Before meal	Mark for before meal measurement data. "Y" is indicated in the "Before meal" column of before meal measurement data. (X-mini plus only)

Elapsed time after a meal	Mark for elapsed time after a meal measurement data. “Elapsed time (1 to 180)” is indicated in the “Elapsed time” column of clock counter measurement data. (X-mini plus only)
Meal amount	Mark for meal amount measurement data. “50%”, “80%” or “Full” is indicated in the “Meal amount” column of meal amount measurement data. (X-mini plus only)
After Ex.	Mark for after exercise measurement data. “Y” is indicated in the “After Ex.” column of after exercise measurement data. (X-mini plus only)

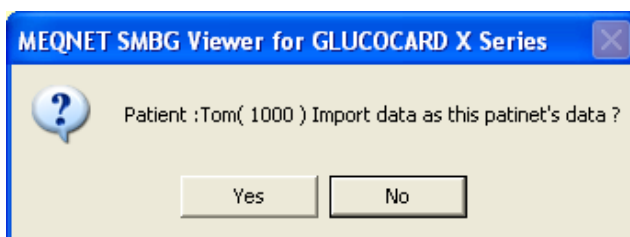
<Data table>

Items	Description
Date 2	Date assigned by this software according to a time zone.
Glu Value Bef B.fast	Blood glucose value measured during the time zone of “before breakfast”.
Glu Value Aft B.fast	Blood glucose value measured during the time zone of “after breakfast”.
Glu Value Bef Lunch	Blood glucose value measured during the time zone of “before lunch”.
Glu Value Aft Lunch	Blood glucose value measured during the time zone of “after lunch”.
Glu Value Bef Dinner	Blood glucose value measured during the time zone of “before dinner”.
Glu Value Aft Dinner	Blood glucose value measured during the time zone of “after dinner”.
Glu Value Bef bed	Blood glucose value measured during the time zone of “before bed”.
Glu Value Late N	Blood glucose value measured during the time zone of “late night”.
Measurement time Bef B.fast	Time when blood glucose value is measured during the time zone of “before breakfast”.
Measurement time Aft B.fast	Time when blood glucose value is measured during the time zone of “after breakfast”.
Measurement time Bef Lunch	Time when blood glucose value is measured during the time zone of “before lunch”.
Measurement time Aft Lunch	Time when blood glucose value is measured during the time zone of “after lunch”.
Measurement time Bef Dinner	Time when blood glucose value is measured during the time zone of “before dinner”.
Measurement time Aft Dinner	Time when blood glucose value is measured during the time zone of “after dinner”.
Measurement time Bef bed	Time when blood glucose value is measured during the time zone of “before bed”.
Measurement time Late N	Time when blood glucose value is measured during the time zone of “late night”.
Insulin B.fast	Amount of insulin given in the morning.
Insulin Lunch	Amount of insulin given in the afternoon.
Insulin Dinner	Amount of insulin given in the evening.
Insulin Bef bed	Amount of insulin given in the bedtime.
Meal B.fast Dose	Intake of food in the morning.
Meal Lunch Dose	Intake of food in the lunch.
Meal Dinner Dose	Intake of food in the dinner.
Ex Dose	Amount of exercise for the day.
Weight	Weight(Body weight)
Dr.'s Comment	Comments entered by the doctor.

- CSV file import to <Data table>, <Meter data table>
You can import data to <Data table>, <Meter data table>.
- * CSV files imported to each display have no compatibility. Import CSV file from the same display where CSV file is exported.
1. Click [Data display] on <Main Menu>, and <Patient selection> will appear. Select a patient whose data you want to refer to, then, click <Select> to display <Data table>.
 2. Click [CSV file import] on <Data table> to import CSV file on <Data table>.
Or click [Meter data] on <Data table>, then click [CSV file import] to import CSV file on <Meter data table>.
 3. <Open> appears. Select drive, folder and file where CSV file exists, then click [open].



4. The following message appears. When you import, click [Yes].



5. The following message appears. Click [OK].



6. Confirm that the file is imported properly.

11. Others

11.1 How to manage data other than glucose value

You can create tables/graphs as you like (up to 10 data) by inputting data manually on this software.

● Procedure

1. Click [Data Display] on <Main Menu>.
2. <Patient selection> appears. Select a patient whose data you want to refer to, then, click [Select] to display <Data table>.
3. When you click [other data] on <Data table>, <Other data input and reference> appears.
4. Input data information in ① below, then, click [Save information].

<Other data input and reference>

Other data input and reference

ID : 1000 Name : Tom Close

Date	Measured values	Remarks
------	-----------------	---------

Period : 08/04/2003 - 08/04/2004 Redisplay

Data count

Add data
Delete data
Save data

Data name: HbA1c
Unit: %
Max val: 10
Min val: 0
①

☐ Ave. line ☐ Trend line

Save information

HbA1c %

12
10
8
6
4
2
0

08/04 08/06 08/08 08/10 08/12 08/14 08/16 08/18 08/20 08/22 08/24 08/26 08/28 08/30 09/01 09/03
08/05 08/07 08/09 08/11 08/13 08/15 08/17 08/19 08/21 08/23 08/25 08/27 08/29 08/31 09/02 09/04

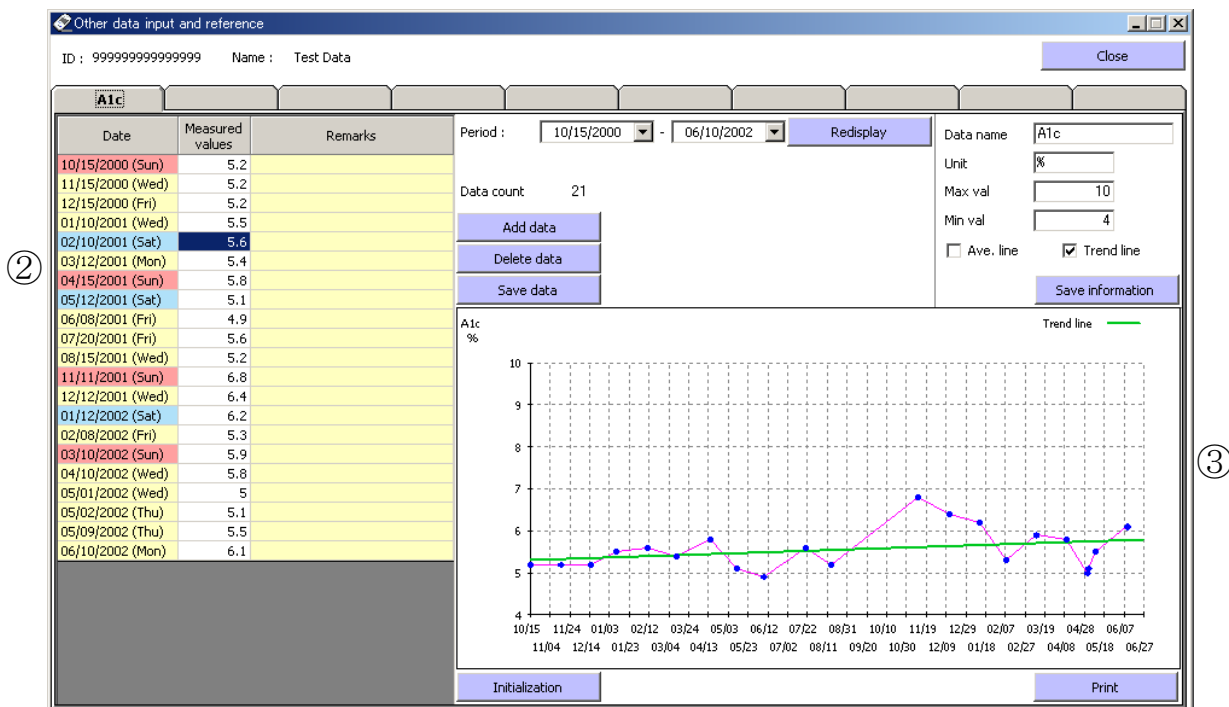
Initialization Print

Contents of data information

- Data name: (necessary)
Input data name.
- Unit: (necessary)
Input unit.
- Max val/Min val: (necessary)
Set maximum value and minimum value of the graph.
- Ave. line
When you click the checkbox, average line appears on the graph.
- Trend line
When you click the checkbox, trend line appears on the graph.

5. When you click [Add data], a row is added to the table ② below. Input “date” and “Measured value”. Click [Save data] to display input data on the graph ③.

<Other data input and reference>



Contents of <Other data input and reference>

- Date: (necessary)

* Do NOT input a day of the week.

Ex.) May 1, 2004 → 05/01/2004

- Measured values: (necessary)

Input measured value.

- Remarks

Write down comments if necessary.

Other buttons on <Other data input and reference>

- [Redisplay]

Selected “Period” is reflected. When you click [Redisplay] without clicking [Save data], added/changed data are deleted. Make sure to save data before clicking [Redisplay].

- [Add data]

Rows are added to the table.

- [Delete data]

Clicked rows are deleted.

- [Save data]

Input data are saved and reflected to the graph.

- You can switch data with the tab above on the screen. (You can save up to 10 kinds of data)

11.2 How to clear measured data in meter

You can delete all measured values which are saved in the meter.

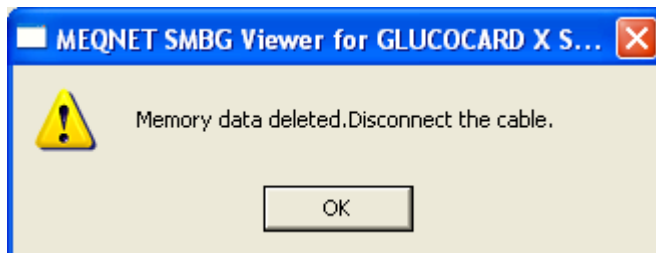
* Confirm the data before deletion because deleted data can not be restored.

● Procedure

1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears.
Click [Meter clear] on < Maintenance Menu > to display <Meter data clear>.



2. Click [Data Clear], then, connect a meter.
3. The following message appears. Click [OK].



4. Disconnect the cable, then, turn off the power.

* Disconnect the cable after data deletion is finished so that the transmission may not start again.

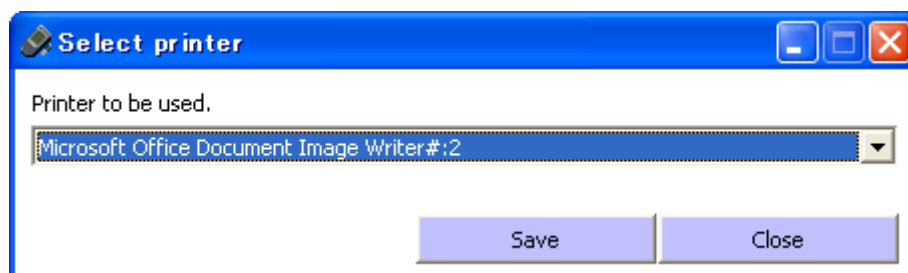
11.3 Printer Setting

You can select a printer to be used with this software.

● Procedure

1. When you click [Maintenance] on <Main Menu>, <Maintenance Menu> appears.
Click [Printer setting] on <Maintenance Menu> to display <Select printer>.

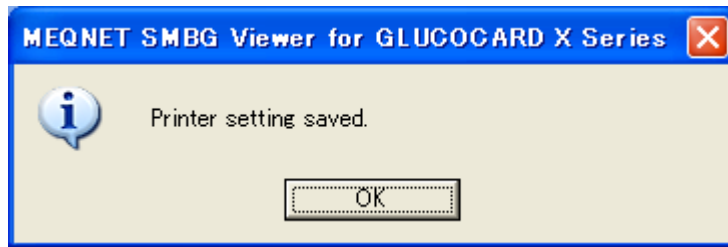
<Select printer>



2. Right after this program is installed in your computer, a printer you regularly use has been

set. When you change printer to use, select another printer, then click [Save].

3. The following message appears. Click [OK].



4. This is the end of printer setting.

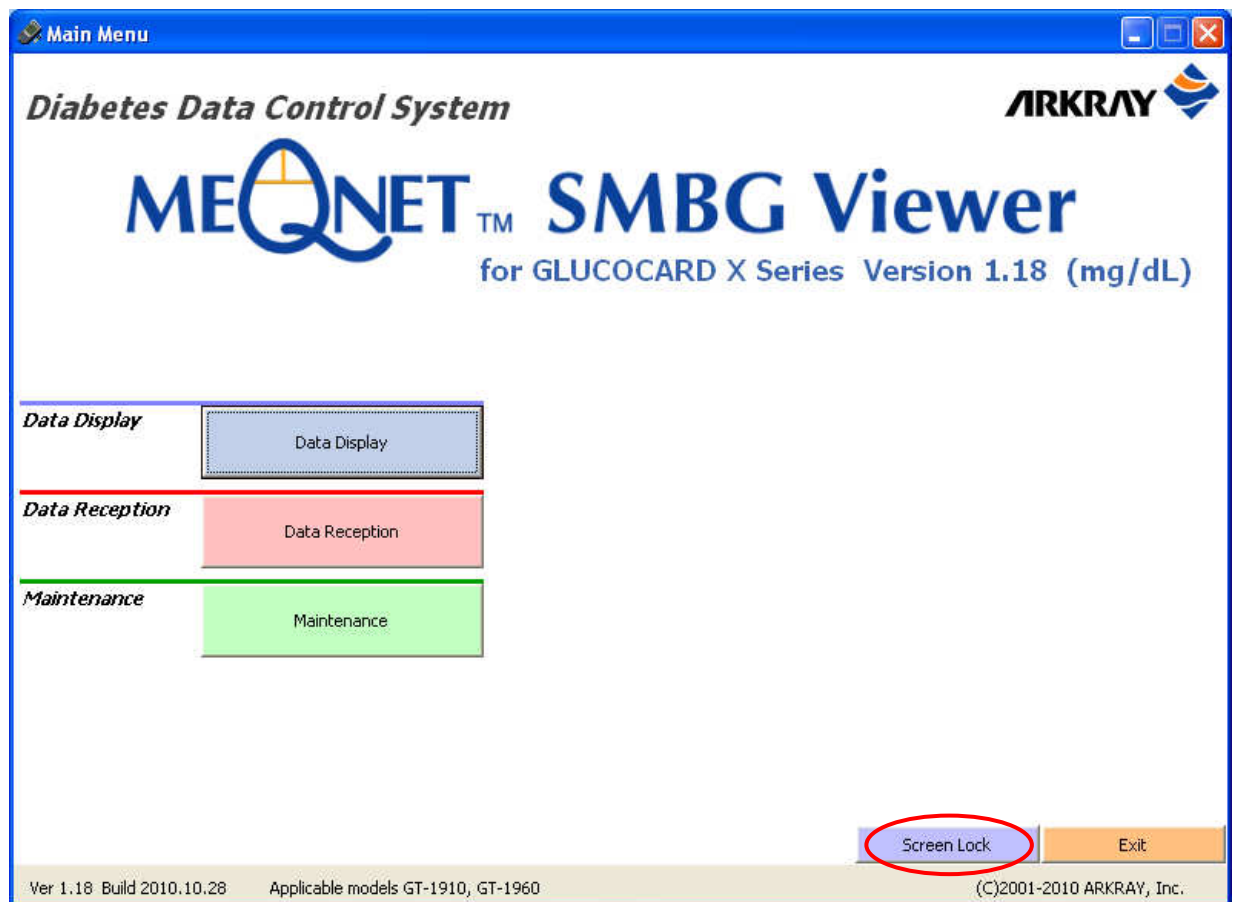
11.4 Screen Lock

Selecting [Screen Lock] disables you to execute any other operations than data reception with every operation button disappearing from <Main Menu>. To retrieve other operations, press [Screen Unlock].

● Procedure

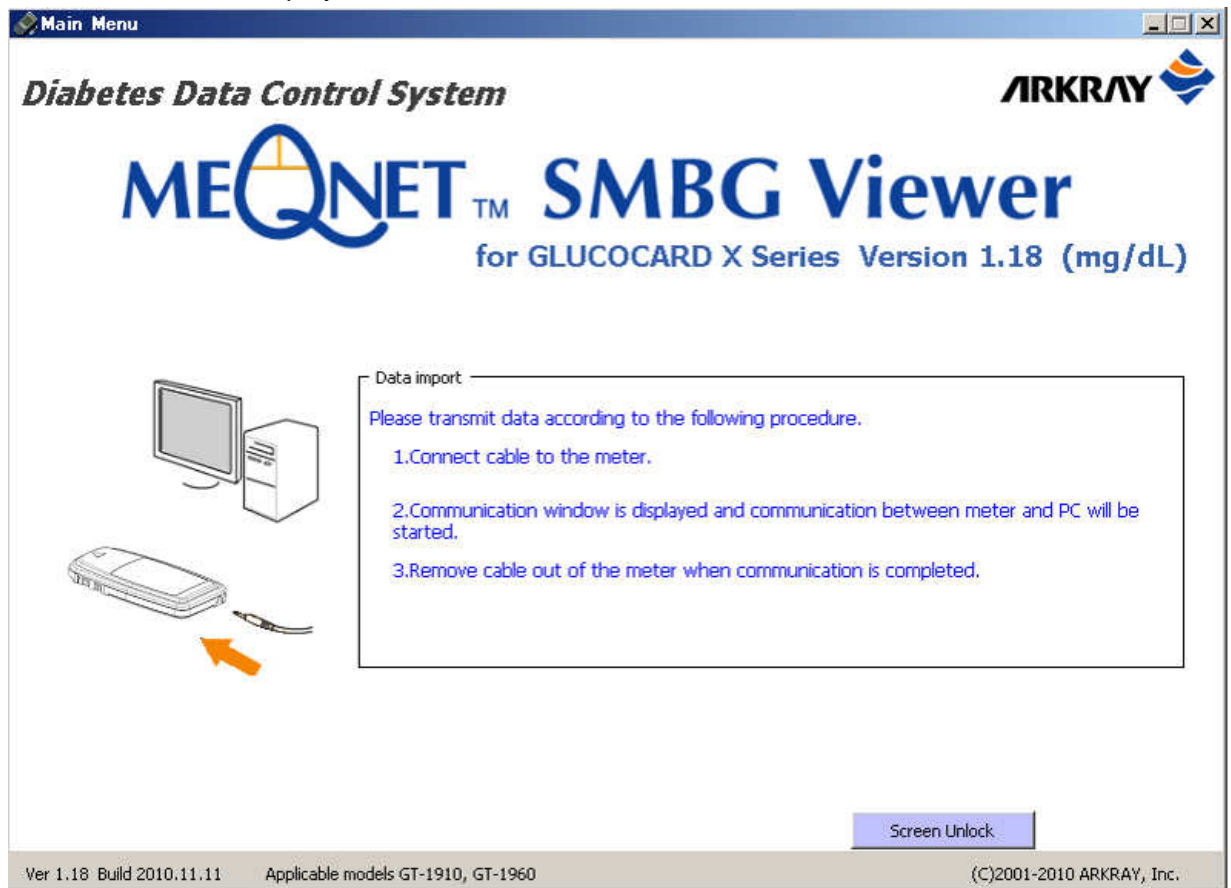
1. Click [Screen Lock] on <Main Menu>.

<Main Menu>



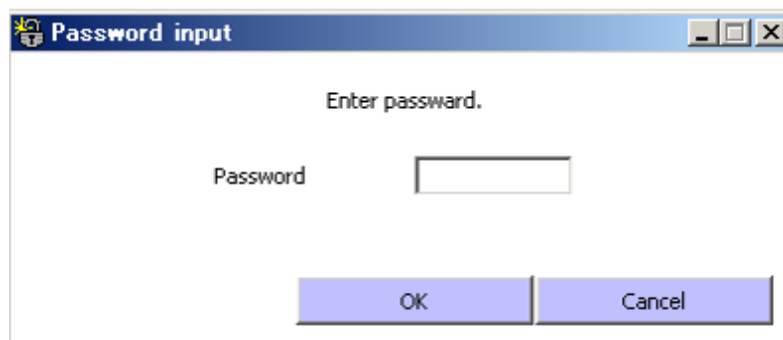
2. The following message appears. Every operation is locked unless you unlock the screen. (When you set "Lock at the time of start-up" in <Basic information registration>, the following message appears on startup of this software.)

<Screen Lock Display>



3. When you want to unlock, click [Screen Unlock] in the lower right corner of the screen.
4. <Password input> appears. Input the password which has been set in [Basic information registration], then, click [OK]. "Screen Lock" will be unlocked, <Main Menu> appears.

<Password input>

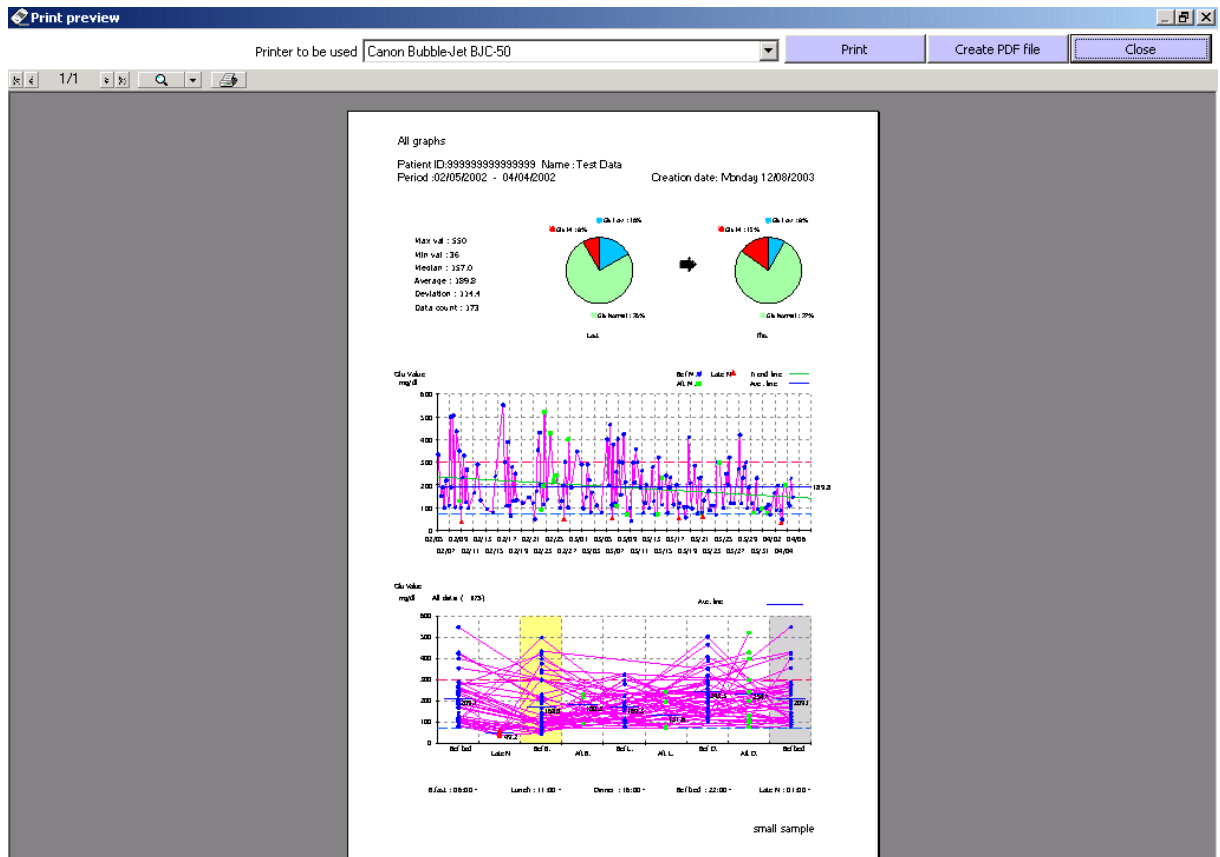




*if you have not set the password, click [OK] without input. "Screen Lock" is unlocked.

11.5 Print Preview

When you have selected “Yes” of “Print preview” on <Basic information registration>, <Print preview> appears by clicking [Print] on each screen.

<Print preview>



- [Printer to be used]
The name of the printer to be used is displayed.
- [Print]
Press this button to have the contents displayed on <Print preview> printed.
- [Create PDF file]
Press this button to save preview in PDF file which can be read by Acrobat Reader.
- [Close]
Press this button to close <Print preview>.
- 
Press this button to zoom <Print preview>.
- 
Press this button for printer setting.

* Press [Create PDF file] button to create PDF file.
* If you choose “Acrobat Distiller” for “printer to be used” and click [Print], failures may occur in created PDF file.

11.6 About HL 7

On this software, data received from a meter is also saved in HL7 format file. Refer to “7.Data Reception” for details on data reception.

*For details on HL7 format file, please refer to Japanese Association of Healthcare Information Systems Industry (JAHIS) regulations on clinical testing data exchange

HL file will be saved as “ddmmyyyyhhnnss-<Patient ID>.txt” in [Save Data] in a folder where this software has been installed.

* Date and time will appear in the place of ddmmyyyyhhnnss.

11.7 Uninstallation

This chapter explains how to uninstall this software. Even you uninstall this software, database is not deleted.

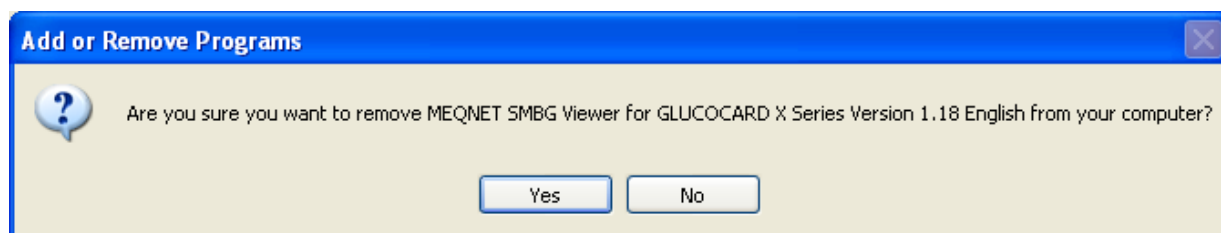
For deletion of database, go to [My Computer], then delete database in install folder.

● Procedure

1. Click [Start] button and select [Setting] → [Control Panel] to display control panel window
2. Double-click the following icon on [Control Panel] window.





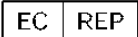
Windows Vista, 7 :	“Uninstall a program”
WindowsXP :	”Add or Remove Programs”
Other :	”Add/Remove Programs”

3. Select [MEQNET SMBG Viewer Version for GLUCOCARD X Series], then, click [Remove].
4. The following message appears. Click [Yes], then, perform uninstallation. This software is uninstalled from your computer.



*Procedure 5, 6, 7 should be performed only when you delete database too.
Basic information, patient information and all saved data will be deleted with deletion of database.
When you want to upgrade or reinstall this software, DO NOT delete database.

5. After you finish uninstallation of this software, delete database. Move from [My Computer] on desktop to the folder where this software has been installed.
6. Delete the folder [MEQNET SMBG Viewer for GLUCOCARD X-METER].
* In case you changed the location of database, delete the relocated database too.
7. This is the end of uninstallation and database deletion of this software.

Symbol	Description
	In Vitro Diagnostic Medical Device
	Manufacturer
	Batch code
	This device conforms to the Directive 98/79/EC.
	Authorized Representative in the European Community



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